

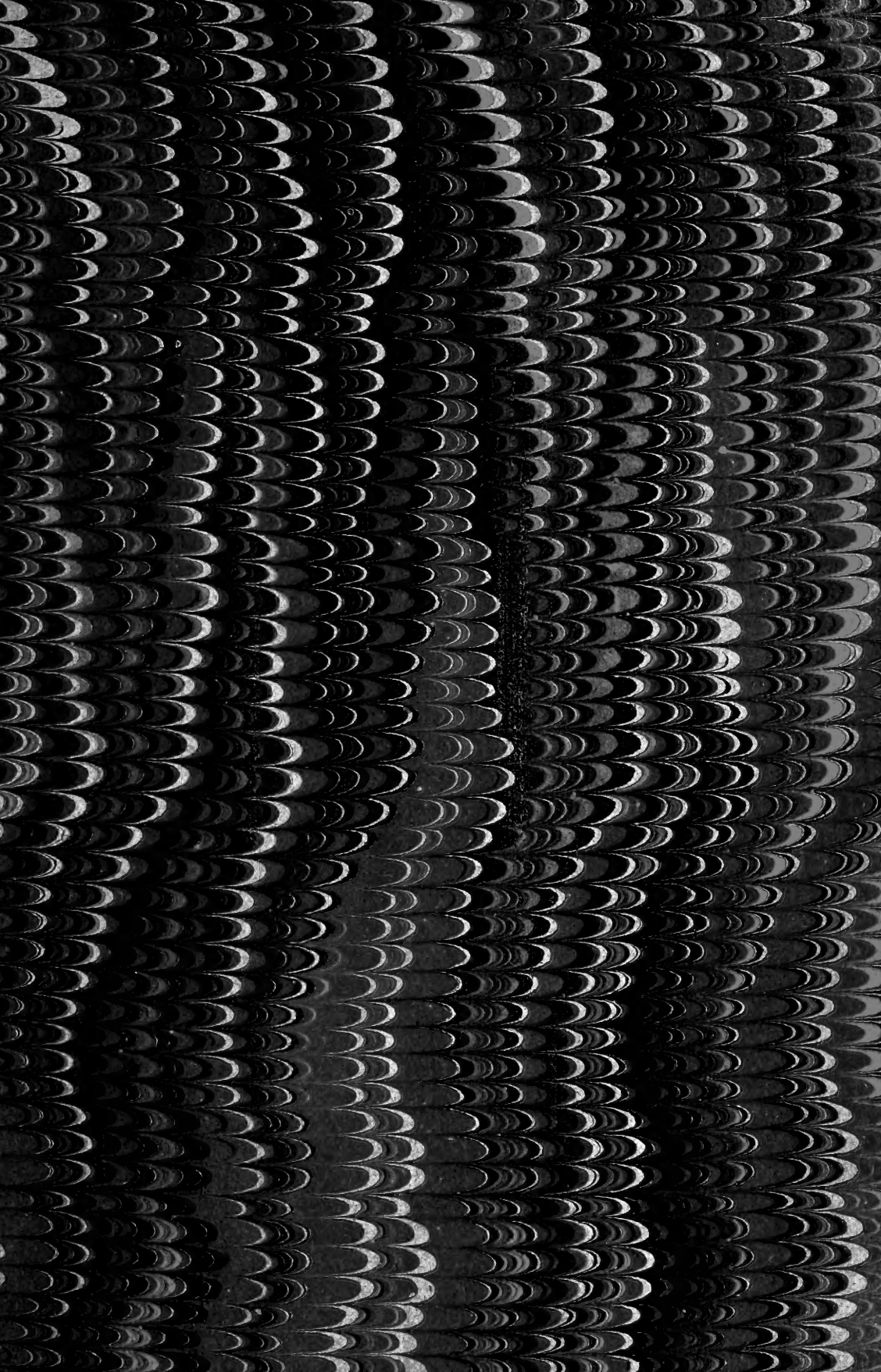
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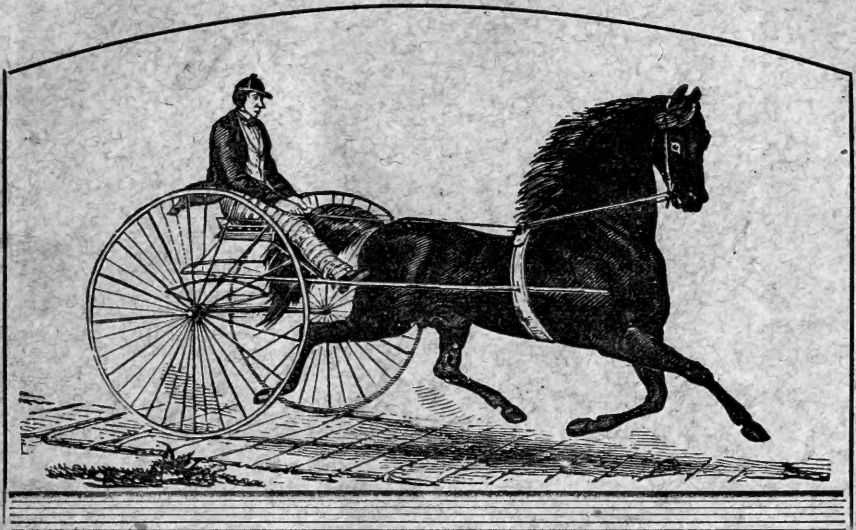




THE

House-Owner's Manual

AND



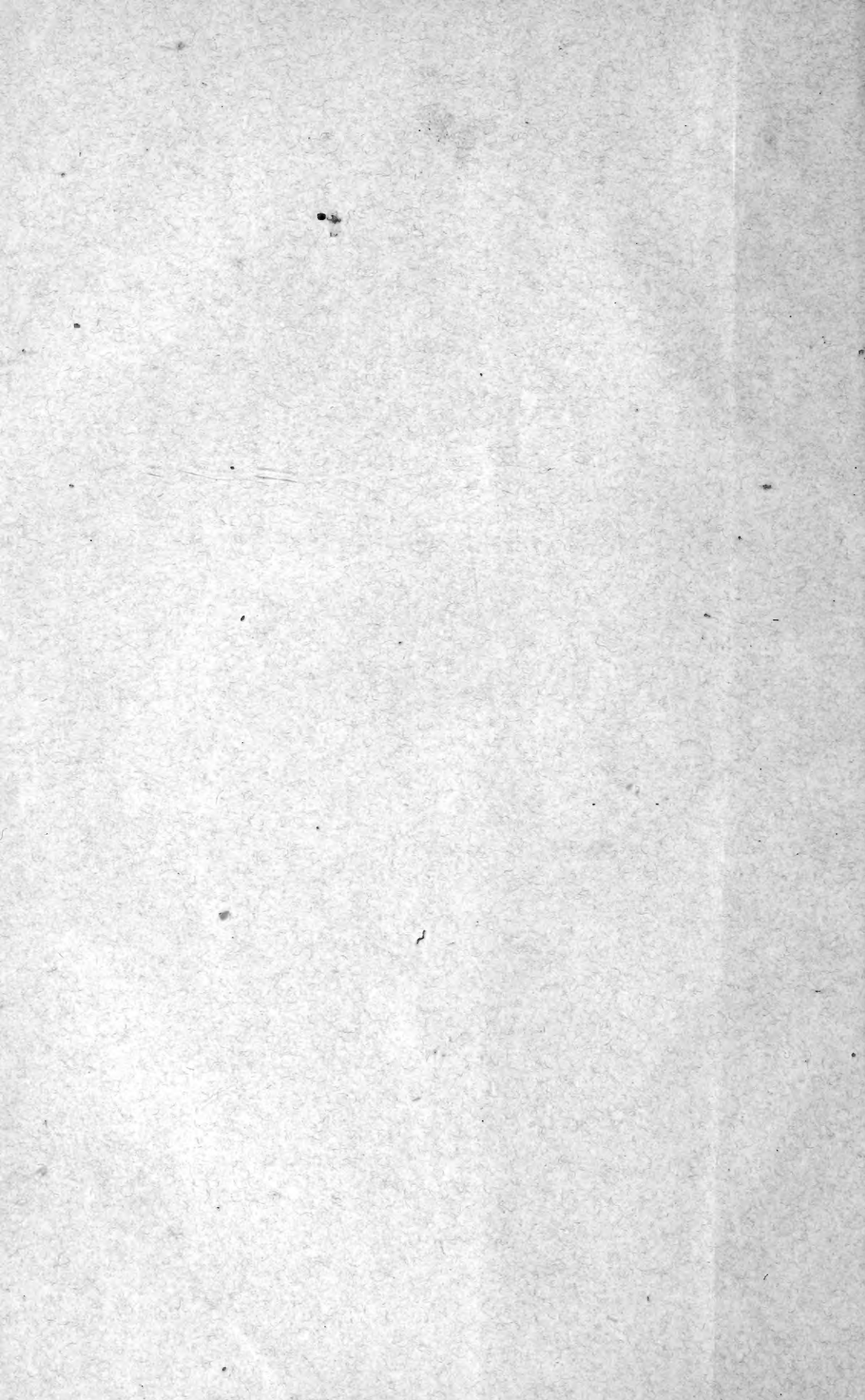
VETERINARY COUNSELOR.

BY DR. W. SAUNDERS.

ROCKFORD, ILLINOIS:

ABRAHAM E. SMITH, PRINTER AND BINDER, GAZETTE OFFICE.

1876.



THE
IMPROVED PRACTICAL SYSTEM
OF
TRAINING COLTS TO TROT WITHOUT A TRACK.

ALSO A NEW METHOD OF
TEACHING PACING HORSES TO TROT,
AND A

TREATISE ON SHOEING,

TOGETHER WITH THE

Most Infallible Prescriptions and Recipes

AS USED IN HIS REGULAR PRACTICE,

*ACCURATELY PROPORTIONED, AND PROPERLY ADAPTED
TO EVERY KNOWN DISEASE TO WHICH
THE HORSE IS LIABLE.*

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1543
BY DR. W. SAUNDERS.

ALSO, PARTICULAR DIRECTIONS HOW TO USE HIS OPERATING CHECK IN
BREAKING AND TRAINING COLTS AND HORSES.

ROCKFORD, ILLINOIS:
ABRAHAM E. SMITH, PRINTER AND BINDER, GAZETTE OFFICE.

1876.

NO 28548
WASHINGTON.

P R E F A C E .

THE author of this work has prepared it for the purpose of correcting many erroneous notions which now prevail in the care and management of Horses, as well as to place in the hands of those interested a valuable instructor. Embracing, as it does, the most reliable treatment that our present knowledge of the diseases of the horse enables us to offer, together with a new method of teaching colts and pacing horses to trot without a track, it cannot fail to be a valuable assistant to those having the care and management of horses.

In the previous editions of this work there are many points which experience has taught me are incorrect, and in this issue I labor to remove all such erroneous impressions.

My method of breaking colts and training horses, with the use of my operating check for the same, is peculiar to myself, and I hope to make it useful to the reader. My treatment of diseases, my new recipes, and my explanations of the symptoms of every disease (and especially those symptoms which distinguish each disease from every other for which it is liable to be mistaken) have been carefully revised and prepared by

THE AUTHOR.

Entered according to Act of Congress, in the year 1875,

BY DR. W. SAUNDERS,

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AGREEMENT.

This may certify, that I pledge my word and honor, and agree in the spirit of mutual interest to keep this book and its contents, as a secret from all those who have not bought one of the same.

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THE

HORSE-OWNER'S MANUAL

AND VETERINARY COUNSELOR.



HALTER-BREAKING THE WILD COLT.

HAVING had an experience of fifteen years in the business of breaking colts and training horses, and having given particular attention to the nature, habits and disposition of the horse, I have, by the light of my experience, made many valuable improvements in the system of educating this useful animal to be subservient to the wants of man. In the following lessons I endeavor to explain, in the most direct manner possible, certain infallible rules, which if strictly adhered to will surely and safely accomplish the desired result.

PUTTING THE HALTER ON THE COLT.

This operation is often accompanied with danger unless the proper steps are taken to avoid it. The first step to be taken, is to see that the enclosure in which you intend to operate upon the colt, is unoccupied by anything which might distract or draw the attention of the colt; for instance, fowls, domestic animals, etc. Being prepared, the object is then to get the colt into his training place as carefully as possible; this done, I proceed as follows: Take a stick about the size of a rake-stale,

and twelve feet long. At one end drive two small nails, the first about two inches from the end, the second ten inches from the first. Take a common rope halter, with a running noose and a stale at least sixteen feet long; hang the part of the halter which is intended to rest on the head back of the ears, upon the nails. You are now ready to commence operations with the colt, in doing which it is advisable to understand the fact that curiosity is a strong trait in the horse, and when not overcome by fear or some other powerful influence, is sure to prevail. This you will test by taking the halter with the noose unloosened three or four feet, holding the end of the stale with the stick in both hands; standing about opposite the shoulder, move the halter gently toward the colt, taking it back as soon as possible; repeat this a few times, putting it a little nearer each time. He will soon reach his nose toward it to smell, when you will hold the stick pretty well up over the head, and while the animal's attention is attracted by the swinging of the halter, you will gently pass the rope over his ears, and turning the stick half around drop the rope from the nails upon the colt's head. This will cause him to start back, and, by holding firmly upon the halter-stale, the noose will be drawn up, fastening the halter upon the head. The stick may now be laid aside.

Having your colt haltered, your object is now to teach him its use.

You will take a position about opposite the shoulder, still keeping at a distance, and give him a short, sharp pull toward you, sufficient to move him, immediately slackening your pull. The object in doing this is to cause the animal to feel your power to move him, and by slackening the pull you do not give him time to resist, which, if the pull should be steady, he would most certainly do. You will repeat the operation upon the other side, alternating from side to side; never attempt a forward pull in the first lesson, because you cannot move him in that direction, and by doing so would teach him to be bad to lead. Should the colt prove to be of a stubborn disposition, and refuse to move as you desire, you will have to resort to the "Yankee Bridle." This consists of a common three strand half-inch rope, ten or twelve feet in length. In one end form a loop large enough to pass on to a horse's lower jaw back of the bridle teeth. Being prepared, stand by the near side of the colt; throw the end with the loop over his neck; reaching under the neck with the hand pass the end of the rope down through the loop; then, keeping loop the same side up, place it in the colt's mouth back of the bridle teeth, and with your right hand draw up on the rope. Having the bridle on the colt, you will now step back and repeat the pulling operation, being careful to get a side pull. As you pass in front, if the colt shows a disposition to move, instead of pulling immediately, first approach and caress him, and, as far as you can, encourage the animal whenever he

shows signs of doing what you require, until he steps willingly without the pull. As soon as he becomes perfectly accustomed to obey the side pull, you may then, and not before, commence to teach him to obey the forward pull by gently pulling him straight ahead; and if he leads, no matter how little, caress him and repeat; but be careful and not pull too hard. If he does not move with a reasonable pull, give him two or three of the short side pulls, and try again. In a little while he will obey your desire, and lead. You are now ready for

HITCHING THE COLT IN THE STALL.

The stall should be about four feet wide, having a hole bored on each side of the rear end, to tie a rope across, about four feet in height. You will lead the colt into the stall, pass the halter-stale through the ring or place for tying, and keep your hold of the end; and, as you come out, put up the obstruction in the rear before tying the halter. Now tie the end of the halter to the rope in the rear, near the left side of the stall, and in such a manner that if the colt attempts to back out of the stall he will hit the rope before the halter is tightened. By observing these rules, and for the first few days not hitching the colt where he has a chance to pull, there is no danger that he will ever become a halter-puller. As a partial guard over your own temper, never speak sharp or over-loud, but gently and firmly. For instance, in your side-pulls say, "Come here, sir." This, kept up, will eventually teach the colt to come to you on being called by these words.

CROWDING OR CRINGING.

If the colt crowds or cringes upon your entering the stall, you will, as you enter, gently caress him and feed him from your hand. If a few attempts do not improve him, you will put the "Yankee Bridle" upon him, throwing the end over a beam or other convenient place overhead; hold the end with the halter-stale in your hand; stand out of reach behind him, and pull the halter against his side, at the same time saying firmly, "Stand around." Should he attempt to kick, give a sharp pull on the bridle, repeating the words as before. The head being now drawn up, it will be impossible for him to kick. This plan will soon teach him to stand around at the word. This bridle is a powerful means of controlling horses that are bad to harness, bad to clean, &c.

BREAKING THE COLT TO DRIVE.

For this, prepare a bridle by attaching the "Operating Check" and a well-padded leather girth with three loops firmly sewed on—one at the center on the back, and one on each side about where the thill-straps would be on a single harness. Put the harness upon the colt, and pass

the reins through the loops on the side. through the bit rings and through the pulleys on the check, with the throat-latch quite loose.

Everything being ready, you will take a position behind the colt, reins in hand, and with the whip gently urge him to move. After a short drive you may commence to turn the colt in different directions—unless he has already tried his own skill at “facing the music,” in which case you have him, for, as he turns, one rein is brought about his haunches, thus putting a sudden check to his good manners. You will now use the whip about his hind-quarters—and if he is ever going to kick, it is when the rein and whip tickle him a little in those parts. Should he kick once he will not be very likely to repeat it, for the rein about his haunches will telegraph the news to the “main office,” and he will conclude it is bad news.

The head is the main part of the horse—it is the part where the conceit lies; if we can control this part of the horse other parts will follow. There is nothing in the world that will take the conceit out of a kicking or runaway horse as quick as my Operating Check. There is no means by which you can teach a colt or horse to back, and obey every motion and pull of the rein, as quick as with the Operating Check. Teaching a colt to back, however, should not be attempted until he is well broken to go ahead; and then, the first few times, without a load and in favorable places.

If these precautions are taken you will not be likely to have baulky horses—if you break them yourself. When you desire to hitch the colt with another horse, you will let the reins out, as much as the distance from the bit to the check-hook would be, turning the crotch-rein on the broken horse outside. Pass the reins on the colt up through his bit-rings, so on through the pulleys on the Operating Check, buckling them to the check-hook or back-pad. You will readily see that you have the same power as though the colt was in single harness. In case your reins have a buckle near or just back of the crotch (as most round double reins have), you can make a third rein of a small rope of sufficient length, putting it on the same as you would the other reins, forming a crotch just back of the turret-rings, hitching the other reins as usual. With that powerful controlling instrument, the Operating Check, at your command, I deem the above remarks sufficient to guide the competent operator to the proper course to control any horse that has not been entirely spoiled by mismanagement.

THE ART OF TRAINING THE HORSE TO TROT WITHOUT A TRACK.

In order to give an understanding of the true principles of teaching a colt to trot, we commence with

PASTURE HABITS.

Very important habits of the colt in the pasture, such as jumping, running, &c., may be effectually prevented by the following means: Take an old strap-halter with a brow-piece (old because it will not shrink), without the halter-stale; fit it closely to the head, leaving the nose-piece loose enough to allow for a free movement of the jaws; take a piece of common medium harness leather about ten inches square; on two sides fasten a strong piece of wire six inches in length, placing it so that the ends are equally distant from the corners of the leather; bend the wires in a semicircular form; punch holes in each corner of the leather and tie in leather strings; place this leather upon the colt's face, the bow of the wires out from and directly in front of the eyes, tying the strings at the top to the sides of the halter just above the brow-piece and those at the bottom to the rings where the nose-piece and sides unite. This gives him plenty of liberty to look sideways, but he cannot look ahead, and so has no confidence to either jump or run, and will do neither. This leather is invaluable to those having the care of young stallions, or colts to be trained for trotters. For instance, if the stallion sees a horse in the road and starts for him, he will lose sight of him the moment he turns to start in that direction, and of course goes no further; if to be trained for a trotter, by the use of this leather he never runs, giving a better opportunity for the walking and trotting muscles to be developed. When we first hitch a horse to a light skeleton wagon, of course we know what we want him to do; but it cannot be supposed that the horse knows, therefore we must commence in some way calculated to give the horse an idea of what we want him to do. The best method ever introduced for this purpose, consists in what I shall denominate the Scoring System, which is indeed a great improvement over the usual method of the track. I find that a flat of not over eighty rods in length is the best scoring ground, and is far superior to the track system for teaching the horse or colt to gather quickly, for he sees the end of his job and takes courage, knowing that at each end he can stop and turn around; this gives him breath and a little rest. It was only after personally testing this principle that I was convinced of its great importance, and now make it known to the public, for it is the quickest way that was ever discovered to make a horse do exactly what you want him

to do, which is to trot as fast as he can without breaking. You must have a light skeleton wagon, nothing over ninety pounds will do. In the absence of this use a sulky or saddle, and proceed as follows: Prepare two rollers by cutting twenty-four pieces of corn-cob, each three-fourths of an inch in length; punching the pith out, these are to be mounted on two straps one-fourth of an inch wide and fifteen inches long, twelve on each strap, the large pieces in the middle and the small ones at each end. These rollers are to be buckled very loose around the fetlock joint, next to the hoof, so they will play loose up and down and rattle when the horse is in motion. This gives him gamey, high-kneed action and makes him trot faster, for, as soon as the horse finds something loose on his feet that he does not understand, he will lift them up higher, thinking that he can step out of them; this gets the front feet up and out of the way of the hind feet, and he will then throw his hind feet out further and handsomer, and will increase rapidly in his reach at every stride. But they must be changed from front to hind feet until he steps to suit you, then use them there, but only every other day while training on the flat; this gives the best possible effect. The best way is to put them on the fore feet first, letting him run around to the halter, changing them to the hind feet; after this it is safe to put them on and drive him. If he hitches on either hind foot, put a roller on the opposite hind foot only; this will make him travel even. If the horse is very spirited, go gently until he gets used to the rollers, which he will do in a day or so. If he shows signs of viciousness, such as bolting, or refusing to rein, you will give him a lesson the same as in breaking the colt; this will bring him to time. If he is a very hard puller and does not yield to the rein as you desire, you will drive him to wagon with the reins hitched the same, except, of course, removing them from the loop on the side to the terret-ridge. You will find this a God-send to control hard-mouthed horses. When first commencing to train a colt, drive slowly over the flat or scoring ground until he gets used to it; then hold him middling strong and urge with the whip, if necessary, and by pulling up gently on the reins and letting him out again, chirping to him as you let out, it urges or lifts him along, and says, "a little faster," "just a little more," and he will soon drive beautifully by the bit. This magic touch of the bit is the most splendid secret ever known to the horseman. Don't make the colt break his trot if you can help it; if he does break, don't haul him down too quick, but let him run a few rods, gently pulling him to the right and then to the left, teaching him to run into his trot without losing any speed. After coming in from the scoring exercise, the colt should be scraped with a wooden knife or scraper—made in a semi-circular form—to remove the sweat, then rubbed dry with cloths or straw, and covered with a blanket or two, if necessary, to keep

him from getting chilled. Never exercise a colt too much at one time, or he will get tired and discouraged and want to give it up.

Don't speed a horse on a full stomach; always feed two or three hours before work. Never give more than two quarts of water when starting out. Always keep a trotting horse well shod. The colt must be fed well, and groomed well to give him life, for as he looks so he will feel. Always teach a colt to go with other horses, and not get excited at a noise. If convenient, have a boy ride another horse so as to keep with or a little ahead of you, while training on the flat; this will encourage the colt to try his best. If any inquisitive person should ask what you have the corn-cob rollers on for, you may say "to keep him from interfering," and not break your word of honor.

In picking out a colt or horse, always get the handsomest one you can, with an easy, loose, open gait, and as many of the following good points as you can: Strong, slanting shoulders (these are the only ones suited to easy or rapid action), and strong, muscular arms. The arm is the most important part of a horse; that the horse may have length of stride and gather quick, it is necessary that the arm, and the elbow particularly, should be long. It is almost impossible for the elbow to be too long, but very common for a horse, otherwise well-formed, to have very poor action, solely on account of it being too short to enable him to gather well. In addition to length in the arm and elbow, full, swelling muscles are necessary to furnish the requisite power to raise the knee, throw the limb forward, and gather up with proper quickness. A narrow, flat and short arm is a defect for which no other quality can make up. The leg, from the knee to the fetlock joint, must be short—from the fetlock to the hoof long, and mechanically formed. The back should be short in proportion to his length; loins broad and strong; neck rather light, feet small, but sound. If you have a colt with these points well developed, with no tricks, don't sell him too quick. First teach him what you want him to do, and when you can't improve him any more, then, if you can get your price, sell—and not until then.

THE PACER.

It is a well-known fact, that some of the best and fastest trotters we have at the present time were, from nature, pacers. If you have a fast pacer, it will pay you well to try this simple, but effectual, method of teaching them to trot: Lay rails in a circle, three feet apart in the centre, two and a-half at the inside, and three and a-half at the outside of the circle—the circle being at least twenty-five yards in circumference. Now have a boy or light man mount the horse, and walk him over the rails at the inside of the circle; and, as soon as he becomes accustomed to stepping over them, rein him toward the outside and start him on a trot—he

must trot, for it will be impossible for him to pace over the rails. This practice, if kept up, will soon learn any pacing horse to trot permanently.

SHOEING.

The object in shoeing horses is to prevent the hoofs from being broken or otherwise injured, as would naturally result from driving over hard roads unprotected in this manner. It has often been remarked, and truly so, that "No foot, no horse," which literally means that a horse without sound feet is of but little value. The preservation of the horse's feet depends very much upon careful and skillful application of the shoe, independently of its being constructed on correct principles. Many horses with very bad feet are enabled to go sound for many years by careful shoeing, while a bungling hand would render the same animal unfit for service in a single shoeing. It requires considerable tact to fit a shoe properly on a bad or weak foot, so as to protect it from injury. It has been proven, by long experience, that the sensitive parts within the hoof do not suffer so long as the bearing of the animal is confined to the crust or wall; but when removed from that bearing they soon become diseased. Hence, if the sole of the foot bear against the shoe in any considerable degree, the fleshy or inner sole becomes bruised between the shoe and the horny sole below and the coffin-bone above—the horse soon becomes lame, in consequence of corns making their appearance.

On removing a portion of the horn, we find a red spot, sometimes slightly, at other times of a brownish or bluish-red appearance.

The feet, in the latter stage, are in such a condition as to require prompt attention, or we may have a sinus forming through the quarter, producing a disease known as *QUITTER*, often terminating in permanent lameness, and frequently in deformity. Few men believe corns to be of so serious a nature, hence their readiness to attribute these effects to other causes. Another evil in shoeing which is calculated to do much mischief, is the fitting of the shoe to the foot while red-hot. The application of the shoe in this condition, causes the crust or wall to become dry and wire in at the heels, tending to cause contraction of the feet. Ossification, Nevicular joint disease, founder, and a variety of other diseases, are frequently due to contraction of the feet; one of the errors of shoeing, being among the chief causes.

To satisfy yourself of this fact, apply a red-hot iron to your finger-nail, and I think you will say with me, that it is injurious.

STOPPING THE FEET.

I am not disposed to lay all the blame of the evils I have just mentioned to the smith; for I am aware that the hoofs of horses standing upon plank floors, not even being allowed the advantages of the dew,

soon become excessively dry and hard, unless artificial means are resorted to to prevent it, and if shod in this state it is almost impossible for the smith to pare them. The opponents of stopping, and there are few, offer as an objection, that it sometimes tends to produce Thrush.

This I do not pretend to deny, where such stopping as cow-dung is resorted to; but it does not occur where linseed meal is used for that purpose. This certainly is the best and cleanest application, and can be used several times by softening with a little water.

To keep the soles moist and healthy, the feet should be stopped every other night in the Summer, and once a week in the Winter. If the crust is brittle, apply the hoof liquid as in coffin joint lameness.

SHOEING HORSES FOR CORNS.

Care must be taken that the corn be well cut out, and a little butter of antimony, or spirits of salt applied to the parts affected. Fill the cavity with a piece of cotton dipped in tar. The hoof from the corn backward, must be cut away so that no part of the heel strikes the shoe; avoiding pressure, relieving the parts from unnecessary concussion. A horse thus shod, no matter how bad his corns may be, will travel sound and with perfect ease. The same kind of shoe is to be used in these cases, as in coffin joint lameness.

SHOEING FOR QUARTER-CRACK.

To remedy this evil requires care and judgment. A horse should be shod upon the same principles precisely as for corns. The least pressure upon the heel will be sufficient to prevent the hoof from growing down, and thus defeat any efforts which may be made towards remedying the injury. A little tar should be kept upon the part, to protect it from dirt.

INTERFERING.

Our first object is to ascertain, if possible, the cause of interfering, and the part which strikes, whether the shoe or foot. Many horses strike from weakness, or long continued exertion. Particularly is this the case in young animals. Others cut from the faulty conformation of the limbs: the toes turning in or out too much, is a frequent cause. Flat footed horses often strike one pastern with the quarter of the opposite foot, and in some cases with both feet. To remedy this, make the shoes middling straight on the insides. By this means the feet frequently work clear.

Where this does not succeed, there is no resort but a strip of India-rubber, placed between the shoe and foot, projecting at least a quarter of an inch beyond the shoe.

Sometimes horses fall into the habit, on account of balling, as is common for them to do, with shoes made so as to form a cup in which snow and ice gathers. To overcome this trouble, have the shoes made beveling out; that is, with the space smaller next the foot, than it is on the ground or lower side; this makes the cup largest at the bottom, and the bottom being out, of course it don't hold.

OVER-REACHING.

Many persons regard over-reaching as an indication of a bad horse; yet we are compelled to recognize it as a fault in some of the best. It frequently occurs with young horses, on a moderate gait, and disappears altogether on increasing the speed of the animal. It arises from the too great activity of the hind legs, the fore ones not being able to get out of the way in time. This habit is often brought on by too heavy shoeing in front, and too light shoeing behind. By reversing this principle, I have found it to answer an excellent purpose. This habit too, like interfering, occurs in young horses after severe driving, from becoming leg-weary, a circumstance which should be carefully avoided, as habits are easily formed, but often most difficult to be got rid of.

SHOEING THE COLT.

To prepare a colt for shoeing the first time, and with a view of making him gentle about cleaning, &c., handle his feet in the following manner:

Strap up one fore foot if he will allow you to do so; if not, tie a slip-noose in a strap and throw upon the ground, in such a way that you can get him to step his right foot into the noose; gently pulling it up, fasten it as you pull, just above the hoof. Now hold on to the end and as you step around in front of him, give the strap a swing over his head, bringing it across his back. Now take a position about opposite the shoulder and pull on the "Yankee bridle," and as the colt throws his weight on his left foot, pull the right one clear from the ground and hold it up a short time, or as long as he struggles; when quiet let down the foot, taking up again as before. This not only gets the colt used to taking his feet up, but accustoms him to having a weight on his back, thus partly breaking him to ride. You will proceed in the same manner with the other fore foot; after which, commence to operate on the hind feet.

Now lay the strap aside, leaving the bridle in the mouth; with the left hand take hold of the bridle within about four feet of the mouth; holding the end in the right hand, throw the rope double on the ground near the left hind foot; take hold of the bridle near the mouth and lead the colt ahead until he steps his foot into the loop. As soon as his foot is in the loop pull up the slack, bringing the rope about the pastern joint next the

hoof. Should he kick he will hear from it; for as you hold tight on the end of the rope, he will get a dispatch from the rear that will take the conceit out of the main "office." As soon as he becomes quiet, you will take hold of both ropes and lift the foot pretty well up, and pass one hand down proceed to handle the foot, rubbing and pulling it a little.

After taking up and letting down the foot a few times, you will find that you can take it up with your hand and hold it. The same process must, of course, be gone through with on the other leg, and after a few lessons, your colt is ready to go to the blacksmith.

These rules will also apply to the worst and most vicious animals.

With a vicious horse, however, you will as soon as convenient strap up the foot, by taking a breast strap; lay it on top of the pastern joint with the buckle inside, wind once around the joint, bringing the billet end of the strap over the arm, and buckle it tight enough to prevent its slipping down over the knee. You will take a position opposite the shoulder, and use him sharply with the "bridle," pulling earnestly and vigorously to and fro, and lead him around on three legs, until you are confident that you have completely discouraged him. Take a hammer and strike a few times upon the foot which is strapped up, at the same time handling it. This will do for horses which strike while being shod forward.

For kickers, take the same course as with the colt, for handling the hind feet, except that as soon as you can you will take a short strap, with a ring slipped or buckled around the pastern joint next the hoof; slip the end of the rope through the ring having an assistant hold it, you can rap and handle as before directed. These same rules will apply to mules, though mules are controlled easier.

HINTS UPON THE HORSE.

When a balky horse throws himself, grasp him by the nose and shut off his wind, and he will get on his pins as quick as he can. If he still refuses to go, continue to shut off his wind.

To make a horse stop catching the lines with his tail; make a crouper strap about two inches in diameter and put on him, and he wont hug the line any more.

To make a horse stop nibbling the neck yoke and learning to crib, or suck wind; put Cayenne pepper wet with water on the places where he is in the habit of biting.

To make a horse stop putting his tongue out of his mouth; buckle a narrow strap around his lower jaw; and if not confirmed in the habit, he will soon stop this bad looking habit.

Always approach a strange horse near the shoulder.

Wet the hay and not the oats, for a coughing horse.

Never let a horse stand long facing a cold wind.

Feed light when changing feed.

Use but a few words with a horse, but have them understood.

Teach before whipping, and when whipping, do it to frighten,— not to enrage.

DISEASES OF THE HORSE.

INFLAMMATION.—From *Inflamo*, to burn.— is one of the most common forms of disease presented to the Veterinary Surgeon, and regarding which many erroneous opinions have prevailed, in consequence of which much injury and often serious consequences have resulted.

With a view to overcome this difficulty, we will give the most simple definition of the term inflammation. It is,— an unnatural and perverted action of, and in the capillary blood vessels of a part; attended with redness, throbbing, swelling, pain, heat, and disorder of functions, with change in both its fluids and constituents, and with more or less general disturbance of the system.

The extent to which structures in a state of inflammation will swell, varies considerably, depending on the vital and physical characters of the tissues involved. Muscular tissue becomes very much swollen, while horny, cartilaginous tissues swell but little, in consequence of their low state of vitality. It must be remembered that it requires an assemblage of the above conditions to constitute inflammation. Swelling, pain, heat, or redness alone, do not constitute that condition, as either may occur, from causes independent of any inflammatory action whatever.

The usual terminations of inflammation are,—resolution, mortification, suppuration, ulceration, hemorrhage, effusion, hepatization, and ossification. By —

RESOLUTION is meant, the state of the tissues after their recovery from the effects of inflammation.

MORTIFICATION is loss of vitality or death of the tissues involved.

SUPPURATION.— A collection of purulent matter, which receives the name of abscess.

ULCERATION.— A purulent solution or continuity of the soft parts arising from loss of substance.

HEMORRHAGE occurs as a direct or indirect consequence of inflammation, from ulceration penetrating through the coats of an artery.

EFFUSION.— An exudation of serum, watery accumulations, as in dropsy.

HEPATIZATION. — Conversion of a texture into a substance like liver.

OSSIFICATION. — Formation of bone — change of soft structures into bony ones.

I now feel prepared to proceed with my remarks upon the various diseases with which the horse is afflicted, with a better understanding re-

garding the interest of our readers, than I would have done had I passed this subject by unnoticed.

DISEASES OF THE EYE.

AMAUROSIS, or Glass eye, as it is commonly called. In this disease the eyes have a peculiar glassy appearance, with an enlarged or expanded pupil. The cause is paralysis of the optic nerve, the best means of detecting which, is to expose the eye to different degrees of light, which when disease exists, makes no impression whatever, while in a sound eye the pupil contracts when exposed to a strong light.

Treatment. — Give a strong purge; follow this twice a day with half-dram doses of *nux vomica*, mixed in the feed; apply the liquid blister back of the eye, and give bran mash until the sight is restored.

INFLAMMATION OF THE HAW; Also known as the **HOOKS**. This is a swelling from inflammation of the membrane in the inner corner of the eye; its office or function is to cleanse the eye of dirt or other substances getting into it.

Treatment. — This is simple and effective. Open the vein under the eye and let it bleed until it stops itself. Give the following ball; Calomel 1 dr., Barbadoes aloes 4 drs., linseed meal 2 drs., molasses enough to make into a ball; and use the following wash; two grs. chloride of zinc, and two ozs. pure soft water. Use the wash twice a day, morning and evening, in the following manner; first put a little into the eye and wait about ten minutes and put in a little more; this gives the full effect of the medicine.

This wash is good for diseases of the human eye, to be used in the same manner as for the horse. I have tried it myself when my eyes were so much inflamed that I could scarcely see at all.

SIMPLE OPHTHALMIA. — This disease arises from some external injury, or from a foreign body getting into the eye, causing inflammation to ensue; the eye becomes swollen, very sensitive and watery.

Treatment. — Use the above wash as there directed. Should a film cover the ball of the eye, remove it with the following powder: Take an egg and break the end of it, and pour out the most of the white; then break up the yolk and stir in with it enough pure salt to make a stiff mass. Then set the egg on the hot coals in the fire, and let it remain until it is perfectly charred. It is then to be removed from the fire and reduced to a perfectly fine powder and kept in a well stopped bottle. It is as near to a universal remedy for the eye as can be found. A portion of the powder is to be put in a quill and blown into the eye, once a day until cured.

SPECIFIC OPHTHALMIA. — This is called by horsemen **MOON BLINDNESS**,

from its periodical appearance; supposed by some to be governed by the Moon. The eyes in this disease become watery, and a white film covers the entire ball of the eye.

When this disease once makes its appearance, we may look for its termination in blindness. The eyes may be cleared up with the eye powder; then exchange the animal with some horse jockey for one with sound eyes. The eyes always appear smaller after this disease; by knowing which you can avoid getting duped yourself.

CATARACT. — This disease is usually the result or termination of Specific Ophthalmia; causing an opacity or breaking up of the crystalline lens, situated directly behind the pupil, presenting a white and cloudy appearance. Little can be done, by way of treatment, for this disease as it occurs in the horse.

DISEASES OF THE MOUTH.

LAMPASS. — All young animals, during the period of dentition, have a fullness or swelling of the gums and bars, or roof of the mouth. In many colts it occasions but little or no inconvenience, while in others the pain is so great as to interfere with their feeding.

When this condition exists, do not resort to the barbarous practice of burning with a red-hot iron, but act humanely. Lance the bars with a sharp pocket knife if you have nothing better, so as to draw about a gill of blood; and then take about an ounce of powdered alum, if you have it, and a handful of salt, and scour the parts thoroughly with it, and in a few days the animal will feed as usual. While working with the mouth, a round stick should be put across, within the mouth, to prevent the horse from shutting it on the hand.

BAGS OR WASHERS. — These are soft, puffy swellings or blisters of greater or less size, appearing along the under surface of the tongue, and occasionally on the cheeks. The disease can not be mistaken if the mouth be examined. If inconvenient to the animal, cut off a portion of the swollen parts with a sharp knife; after which apply a wash composed of equal parts of tincture of myrrh and water to the wound, two or three times a day.

SORE MOUTH. — This occurs from the bit bruising the parts in reining, and is situated usually at the angles of the mouth. Equal parts of tincture of myrrh, tincture of aloes and water, is the best application we can make.

SLAVERING. — From certain causes the glands of the horse's mouth, become excited to secrete a great quantity of saliva: Pimples on the inside of the mouth and on the tongue, known by the name of Thrush, cause slaving and difficult mastication. This may be remedied by taking half an ounce of chlorate of potash, to half a pint of water; to be

applied three times a day with a soft swab. The principal causes of slavering are, the eating of white clover, the sharp edge or snag of a tooth, or a rough bit, with a rough rider or driver, may cause soreness or irritation of the mouth, and slavering. If it is clover or clover hay, stop its use; if a broken tooth, take it out; if a sharp edge of a tooth, rasp or file it smooth; if a rough bit, change it. In any other case, see that the horse has good food, and look to it that he is not laboring under worms or indigestion.

WOLF TEETH.— These are two small teeth which make their appearance immediately in front of the upper molar teeth, in all colts, at some period from the first to the fifth year. It is supposed by many people, that they exert an evil influence over the eyes of the horse. My experience does not prove this fact, yet I do not deny that their removal helps the inflamed eyes; the same result would follow the removal of one of the upper nipper teeth; the bleeding and irritation caused by pulling the tooth, would draw the inflammation from the eyes to that part, and of course help them.

SORE THROAT.— This is usually one of the first indications of Catarrh, and when confined to that portion of the throat at the angle of the jaws, it is termed Laryngitis. The symptoms of this disease are well marked; the head is stiff, and if the throat is pressed upon, excites coughing; the animal manifests difficulty in swallowing, and frequently considerable saliva collects in the mouth.

TREATMENT.— Apply strong mustard, made into paste with vinegar, to the throat, and rub it well in; or, linseed oil two parts, with spirits of hartshorn one part, will answer a good purpose. Give upon the tongue half a tablespoonful of powdered ssitpetre, twice a day, with sloppy bran mashes and flax-seed tea, will usually cure the worst cases of this disease in a few days.

STRANGLES.— This is a more severe form of Laryngitis, involving the glands of the throat, causing very great swelling, which often threatens suffocation; the breathing becomes laborious, and can be heard at a considerable distance.

TREATMENT.— Commence the treatment by burning gum guaiacum, a lump the size of a walnut, on a shovel of coals under the horse's nose, gives immediate relief from the hard breathing, and hastens the cure; at the same time take flax-seed meal one pint, pour boiling water upon it sufficient to make a thick batter; now spread the batter on an eight-tailed bandage, which is made by taking a piece of cloth of sufficient length to go around the horse's neck, and cutting three slits in each end; put this on, letting the poultice cover the swollen parts, the glands, tying some of the tails in front on the brow; this keeps it in place. Put the

poultice on warm, and change as often as it becomes dry. As soon as the swelling under the jaw becomes soft, it should be lanced. Feed warm bran mash, and keep the animal warm and dry.

INFLUENZA.—Spring and fall are the seasons most productive of epizootic (epidemic) catarrh. One year it assumes a mild form, the next perhaps a most malignant one.

SYMPTOMS.—These vary very considerably in different animals. The usual leading symptoms are, slight watery or thin mucous discharges from the nose, the eyelids presenting a redish or orange-red appearance; matter collects in the corners of the eyes, pulse feeble, great debility, as shown by the quick, feeble action of the heart—a symptom rarely absent—membrane of nose much reddened, sore throat and cough; occasionally the feet become fevered, as in founder, causing much stiffness, which may be easily mistaken for that disease.

TREATMENT.—This being a typhoid disease, requires a sustaining treatment, or our success will be very doubtful. In the early stages of the disease, give, the first two days, ten drops of tincture of aconite in a little water, every six hours, after which give, in a pail of water to drink, once a day, one ounce of spirits of nitre, and give in the feed, three times a day, one of the following powders: gentian root, saltpetre and anise seed, of each one oz.; sulphate of quinine, one drachm; mix and divide into eight powders. The throat should be bathed in mustard and vinegar, or with linseed oil 3 oz., spirits of hartshorn 1 oz., mixed together. No hay or corn should be given, but scalded oats and wheat bran, with linseed tea or oatmeal gruel, should constitute the diet; and above all, good nursing is very desirable.

NASAL GLEET.—This is a chronic discharge from one or both nostrils, of a whitish muco-purulent matter, the result usually of neglected catarrh. The general health of the animal does not seem to suffer; he looks well, feeds well and works well, yet we have this discharge, which is caused by weakness in the secretory vessels of the lining membrane of the nose. The successful treatment in all cases where this disorder has existed, has been on the tonic principle; bleeding and purging are positively injurious. Give one of the following powders, night and morning: Sesquin-chloride of iron, 2 oz., powdered cinnamon, 1 oz., mix and divide into 4 powders; give one powder every morning until gone. At the same time, take sugar of lead $\frac{1}{2}$ oz., sulphate of zinc $\frac{1}{2}$ oz., blue vitriol $\frac{1}{2}$ oz., rain water 1 gallon; dissolve the articles in the water; and inject enough of this to pass entirely up the nostrils, once a day. A patent syringe that does not have to be removed to fill is best. Continue the use of this as long as the discharge continues, or until the cure is effected. Keep his head raised above a level when using it.

PNEUMONIA.—This disease is known to horsemen as lung fever. It is either inflammatory or congestive, arising from various causes, as high feeding, badly ventilated stables, violent exercise, or sudden changes from heat to cold. In the congestive stage there is no pulse to be found, and on applying the ear to the side, no sound is heard; cold sweats bedew the body, the respiration is labored; eyes wild in their expression; legs cold; the animal appears dull and stupid, and with difficulty made to move; he does not lie down. In these cases put two heavy blankets upon the animal and secure them with a girth. As soon as it can be obtained give the following: Tartar emetic, 1 drachm, sweet spirits of niter, 1 oz., warm water, 1 pt., mix and give as a drench, all at once. Blister the sides of the chest and breast a large surface, with aqua ammonia. While waiting for the action of the blister, the cold legs should be rubbed with alcohol, one pint, and powdered cayenne pepper, 1 oz., mixed. This should be frequently used as long as the legs are cold. If the blister is good and well applied it should act in from twenty to thirty minutes. If it does not act there is but little prospect of a cure. Should the pulse become quick, and the mouth hot, with a crepitating or crackling sound be heard on applying the ear to the side, give ten drops of the tincture of aconite, in a little water, to be given every six hours until relief is obtained. Enemas of soap and warm water, should be injected into the rectum, but in no case should physic be given. It is of the greatest importance to be able to distinguish one disease from another. Lung fever may be mistaken by some persons, for founder. A medicine that would be good in founder, would be almost certain to prove fatal to the lung fever patient. Nature never makes a mistake in giving the right symptoms, if we do in giving medicine. Notice well the symptoms as directed and given, in each disease, before giving medicine.

PLEURISY.—This is an inflammation of the lining membrane of the chest, and covering of the lungs. The symptoms are: uneasiness, pawing, looking at the sides, pulse quick, pain on pressure over the ribs, body hot, lying down but rising quickly. The same treatment as in inflammation of the lungs, (as pneumonia is often called) is right. See that you do not treat for bots, or colic, as the symptoms might be called these by some knowing one. These cases are very apt to terminate in Hydrothorax, or Dropsy of the Chest. Symptoms—Breathing short and quick, legs straddling, pulse small and quick, breast, belly and sheath swell, the animal stands night and day, which should he continue to do for a number of days, you may be sure the case will prove fatal. The treatment of this disease as a general thing, is not very satisfactory. The Iodide of Potassa in half drachm doses, three times a day, has proved the most useful medicine, in connection with seatons in the breast.

BROKEN WIND, OR HEAVES.—This disease is well known to horse-men; so we will content ourselves merely by giving the most successful remedies, which for the most part are only palliative: Divide half an ounce of pulverized *Digitalis* in twenty parts and give one part night and morning in the feed, until gone; this will usually allay all signs of the disease in two weeks. Proper care in feeding and watering the animals, will do as much good as any thing. Never give a large feed of bulky food; never give more than one pail of water at a time; always wet the hay with salt water if the least dusty; don't drive too fast after feeding or watering, as this is the cause, of more than half of all the cases of this disease.

INFLAMMATION OF THE BOWELS.—This disease may appear suddenly, or it may be slowly coming on. The symptoms resemble those of colic, for which disease it is often mistaken. The pulse is our certain guide in determining the character of the disease; when that is full and natural, or nearly so, there is no inflammation; if full, strong and quick, and often scarcely perceptible for a number of beats, there is inflammation; other symptoms corresponding, there is no difficulty in determining the case. In Colic the symptoms of pain are intermittent; in Inflammation of the Bowels there are no intermissions; the belly is very tender, will hardly bear to be touched; legs and ears cold. Other symptoms which are present in both diseases, are pawing, rolling and tumbling about, looking at his sides, etc.

TREATMENT.—Bleed from six to eight quarts, or until the pulse becomes natural, and give ten drops tincture of aconite in warm water every three hours until relieved; apply a blanket saturated with hot water to the entire body, and a dry one outside; keep it up for two hours, then remove the wet ones and replace them with dry ones, well secured with a girth around the loins, and one around the middle. Immediately after bleeding, inject the following enema into the rectum, for the purpose of opening the bowels: Warm water, one gallon, with half an ounce of aloes dissolved in it and a pint of linseed oil mixed in. After the injection has been given, if the bowels do not act properly administer the following drench: Warm water 1 quart, powdered aloes 2 drams, linseed oil 1 pint, mix. This will not irritate the bowels. In extreme cases it may be necessary to give 20 drops of croton oil in place of the aloes. If the case is caused by over physicing, and the purging is violent, give the horse plenty of wheat flour gruel well boiled, and salted enough to take off the peculiar taste; add to each quart two ounces of powdered charcoal; give this amount at a time as a drench. By this means the bowels are soothed, and the remains of any thing that was irritating them may be carried off. After ten or twelve hours, if the purging has not stopped, treat it as recommended for diarrhea.

DIARRHEA.—The cause of this disease is exposure to the cold, over exertion, change of water, overdoses of cathartic medicine, etc.

TREATMENT.—Give one of the following powders in the flour gruel mentioned above, every six hours until the bowels are checked: Powdered opium 1 drachm, powdered catechu 2 drachms, prepared chalk and charcoal, of each 1 ounce, mix and divide into four doses, each to be given in a quart of the gruel.

COLIC.—This disease, known as the gripes, cramp and fret, is either spasmodic or flatulent. Spasmodic colic is spasmodic contraction of the muscular coats of the intestines, causing griping pains, etc. (See inflammation of the Bowels.) Flatulent colic is an accumulation of gas in the stomach and intestines, generated by fermentation in the stomach, causing the abdomen to become distended or swollen, and if the walls of the same be struck with the point of the fingers, a windy sound is elicited, and it will be noticed that gas escapes from the anus; and when rolling the animal tries to keep on his back.

TREATMENT.—For spasmodic colic give 1 ounce tincture opium, 1 ounce sulphuric ether, 1 ounce tincture capsicum, $\frac{1}{2}$ ounce tincture camphor, in half a pint of warm water, to be given as a drench, to be repeated in half an hour, if relief is not obtained. In flatulent colic, give chlorate of potash $\frac{1}{2}$ oz., sulphuric ether $\frac{1}{2}$ oz., tincture of aloes 3 oz., warm water one pint; mix and drench. If the symptoms continue, repeat the dose thirty minutes after the first, and inject into the rectum an enema composed of warm soap-suds one gallon, with a handful of salt thrown in. Never drench the animal with milk and molasses, because some wiseacre thinks it's "bots," and recommends this as a cure.

WORMS.—Thousands of animals die annually from the ravages of these pests, without the true cause being suspected; especially is this the case in the young of the mare, cow, sheep, and pig. Each variety of worms has its characteristic symptoms, viz.: In bots, we rarely have loss of condition, but when the bots become troublesome, colicky pains, quickened respiration, with a strong tendency to inflammation of the bowels, will be observed. Bots are rarely troublesome, except when passing away in their regular manner, which occurs from May to August in each year. In most other varieties of worms the symptoms are debility, sluggish movements, staring coat, and a peculiar pallid appearance of the lining of the lips, agitation of the heart and tail, and where the fundament worms exist, a yellowish white substance will be found about the fundament, indicated also by rubbing the tail. The treatment for worms has been attended with much uncertainty heretofore, and is to the present day, with practitioners generally. Some six years ago the writer discovered a remedy but little known to the medical profession, which has

a specific on all classes of worms; he has never known it to fail in speedily giving relief: Take powdered white Indian hemp root 1 oz., podophyllin 1 oz., pink root 1 oz., bitter root 1 oz., balmony 2 oz., aloes $\frac{1}{2}$ oz., all to be powder; mix thoroughly together, and give one tablespoonful of the powder every twelve hours, in half a teacupful of molasses and a pint of warm water, as a drench, until it physics. In five or six days give it again the same way. The pin-worms, which sometimes inhabit the rectum, or last gut, may be brought away by an injection of strong salt water.

RETENTION OF URINE.—This is known by frequent but unsuccessful efforts to stale. In some animals it arises from a dislike to splatter their legs in voiding the water; hence the horse will frequently retain in the bladder until the litter is shook up under him, when he will at once relieve himself. When the result of inflammation of the kidneys or bladder, the following train of symptoms will present themselves: considerable fever, great anxiety of the countenance, constant straining efforts to pass water, but very little being passed, and that dribbling away. The horse straddles when he moves about, as if fearing to bring his thighs together. The means of distinguishing inflammation of the bladder from inflammation of the kidneys, are: In inflammation of the kidneys there will be tenderness on pressure, but not in inflammation of the bladder.

TREATMENT.—As soon as possible, give: linseed oil 1 pint, balsam copaiba 1 oz., sweet spirits of nitre 2 oz.; mix and shake well, and give at one dose, repeating every four hours until it operates as physic. Inject a little salt water up the urinary passage, for the purpose of cooling the parts, and creating a desire to pass water; or it may be necessary to use the catheter, made expressly for the purpose; this is passed up the urinary passage to the bladder, when the water will flow freely, and give instant relief.

QUITTER.—This is a formation of pus between the hoof and the soft structure within; a sore at the coronet or upper part of the hoof, which at first is a hard, smooth tumor, soon becoming soft, and breaks, discharging quantities of pus.

TREATMENT.—Poultice the foot for several days with flax-seed meal; after discontinuing the poultice, inject with a syringe either of the following once a day: Chloride of zinc 2 drs., dissolved in one pint of soft water; or, sulphate of zinc 1 dr., sugar of lead $\frac{1}{2}$ dr., 1 pint of water; or, nitrate of silver 2 drs., in a pint of water. Before using the wash, have the foot well cleaned with castile soap and water.

THRUSH.—This is a disease of the frog, causing a discharge of matter from its cleft or division, occasionally causing lameness.

The treatment is simple and effective: Wash the diseased parts well

with castile soap and soft water, and sprinkle a small quantity of pulverized sulphate of copper in the cleft, and secure it by pressing a little raw cotton down upon it in such a manner as to keep out the dirt. In two or three days repeat, if necessary. It rarely requires a second dressing.

CANKER.—This is a more aggravated form of thrush, often proving very troublesome to manage. It is a morbid or diseased condition of the sensitive sole, or of it and the sensitive frog, causing the separation of the horny sole, and a growth of fungus flesh to sprout up and occupy its place.

TREATMENT.—First remove all dead or loose portions of horn, and the masses of fungus or proud flesh, which may be shaved off with a sharp knife, being careful not to wound the sensitive sole. The fungus is then to be touched with a stick of nitrate of silver, once a day, until the parts look white and healthy and no red sproutings of proud flesh remain. The foot must be protected from cold and dirt, by a bandage spread with balsam of fir, and a canvass bag or boot, made to slip over the foot, and tied around the pastern. While undergoing treatment, the horse must be kept where his feet will be dry, and have daily exercise.

SCRATCHES, OR GREASE.—There are few diseases for which there are more cures among horsemen than for this. The following treatment I have found the most satisfactory, and the least troublesome of any other: Take Glycerine 2 oz., carbolic acid 1 drachm. Mix and shake well, and apply with a soft swab once a day; Immediately after washing the parts with castile soap and warm soft water, the medicine is put on.

Where the legs are much swollen and inflamed and especially if there are sproutings of proud flesh, which may be known by the extreme redness of the parts, make a poultice of ground flax-seed with lime-water, and before applying it, sprinkle it over with powdered burnt alum. Renew the poultice twice a day, until the sores look white, then use the above liquid. The same treatment is proper for cracked heels. In all of these cases, use the alterative powder, which see.

FOUNDER.—This disease occurs generally in the horse with hard, brittle or contracted hoofs, in consequence of their inability to yield to the weight of the animal. In this condition they wait for the exciting or immediate cause to develop the disease. These causes are a hard drive upon a hard road, watering when warm, with very cold water, standing in a draught of air, etc. Symptoms: fore feet thrown forward resting upon the heels, weight of the body thrown back upon the hind legs, front feet hot and tender, pulse full and quick; the animal in very severe cases seeks relief by lying down. Treatment: If the animal is in full condition, bleed freely from the feet, and give the following: Barbadoes aloes, 6 drachms, croton oil, 6 drops, pulverized gentian, 2 drachms. Mix with

water in form of a ball; foment the feet well with hot water, and then poultice with flax-seed meal for several days; give in the water to drink every six hours extract of belladonna, 1 drachm. Under this treatment the worst cases usually recover in one week's time if taken in hand early.

POMICED FEET.—This disease is known to horsemen as falling of the sole, and is the result of neglected founder. Careful shoeing, so as to protect the sole, is all that can be done in this disease.

NAVICULAR JOINT LAMENESS.—Coffin Joint Lameness, as it is commonly called, is one of very common occurrence, and the symptoms so obscure as not to be noticed, or insufficient in the early stage, to diagnose the disease. Symptoms.—Acute lameness discoverable in the foot; the foot is pointed forward when the animal is at rest, and when traveling he picks up the foot nicely, but drops it tenderly, striking the toe first; the shoe therefore is worn considerably at the toe and very little at the heels. In this disease the foot always appears smaller, "pinched in" or contracted at the heels.

TREATMENT.—With a view of changing the morbid condition of the foot, and starting a new growth of horn, apply the following blister: sweet oil 1 pt., pulverized cantharides $\frac{1}{2}$ oz., pulverized gum euphorbium 1 oz., spirits of turpentine 2 oz., oil of diganum 2 oz.; mix and shake well, and it is fit for use. Apply it on the coronary ring in the hairs just above the horn, on the front part of the foot, and as far back as the quarters; it is applied every sixth day. At the same time use the Hoof Liquid, to soften the horn and remove any fever or dryness of the foot: Take glycerine $\frac{1}{2}$ pt., oil of tar 4 oz., oil of origanum 4 oz., mix, apply it all around the top of the hoof down one inch, every alternate evening. Have the horse shod with narrow thick shoes; remove all pressure from the heels, by leaving a sixteenth of an inch space between the shoe and foot, from the quarters backward; do not allow the shoe to be set back half or three quarters of an inch from the toe, and the projecting parts cut away as is often done, do not allow the smith to cut away the heels or frog, nor apply a hot shoe to the foot; do not allow the foot to be spread at the heels by the use of tongs; let nature do her own spreading, which she will do, if the directions above given are followed, to assist her.

OSSIFICATION OF THE LATERAL CARTILAGES.—These Cartilages are two gristly projections or wings, attached to the coffin bone at the heels, and may readily be felt above the hoof. From contraction, corns, etc., these elastic bodies often become changed from gristle to bone in consequence of inflammation, leaving the horse with thick heels, and a short tender tread in traveling. The same treatment as for navicular joint lameness is right.

SWEENY AND SHOULDER STRAIN.—The first name applies to an affection

of the muscles of the outer side of the shoulder. The last to a strain of the great saw muscle, which is the principal muscle in bearing the weight of the body, and connecting the forearm with the body. Both affections may be present at the same time, in which case the animal will be very lame dragging the toe on the ground as he steps, and the muscles of the shoulder will be atrophied or wasting away.

TREATMENT.—If the case is very bad, bleed about six quarts from the large plate vein in the fore arm, and insert a rowel in the shoulder; commencing at the upper margin of the shrunk parts, make a pocket about ten inches deep, pass a slice of raw potato to the bottom of the pocket. A ring of leather with a small string tied to it, is to be dipped in venice turpentine, and placed just within the mouth of the opening; this will allow the pus to escape. As soon as it gets to running nicely, the ring of leather should be pulled out; put your hand near the bottom of the rowel and gently move it upward, pressing the bulk of the matter out; after which wash the leather and smear it with the turpentine, and place it in the opening again. The parts where the hot fluid and matter run must be washed every day, and then smeared with linseed oil to keep the hair from being scalded off. In about two weeks the slice of potato will be all rotted away. The leather is then to be pulled out, and the matter thoroughly pressed out, and the parts washed with soap and warm water as before, and well smeared with the oil. In a few days with this case, the rowel will heal and the lameness disappear. A case of common sweeney not complicated with strain of the saw muscle, may be cured by the application of the blister recommended in Navicular Joint Lameness. To be applied to the shrunk parts, and well rubbed in. To be applied once in six days; two or three applications will cure it.

CAPPED HOCK.—This is a bruise of the cap or point of the hock joint forming a serious abscess.

TREATMENT.—Apply the following ointment for the purpose of softening the parts; take lard 1 lb., pulverized cantharides, $\frac{1}{2}$ oz., pulverized euphorbium, 1 oz., spirits of turpentine, 2 oz. Mix and apply. In two days after apply tincture of iodine or iodine ointment; and in four days after this, apply the first prescription again, and so on until cured. Capped elbow requires the same treatment, if not lanced; but if lanced, which it should be, if soft and appears to contain any fluid; then only the iodine is used once a day on the outside, with a little green ointment in the incision.

BONE SPAVIN.—This one of the most common causes of lameness in the hind legs. Spavin arises from strains, sprains or blows upon the hock-joint, causing an inflammatory condition of the cartilaginous cushions which cover the uniting surfaces of each bone or of the ligaments that surround the joint, and bind the bones together; sometimes both are

involved. This inflamed condition of the joint may be considered the exciting cause of spavin, and if not speedily removed, spavin soon follows; the synovial fluid commonly called joint oil is soon absorbed, the cartilages of the joint are turned to bone, which unite one with the other forming one solid mass, destroying the mobility of the parts involved, and constituting what is technically called anchylosis of the hock-joint.

TREATMENT.—In the early stages, that is before any alteration of structure takes place, the application of iodine to the parts will often abate the inflammation, and prevent external enlargement. When there is external enlargement, active blisters should be applied over the part, not for the purpose of removing the enlargement, but with a view of removing the lameness, by increasing the inflammation, thereby causing a more speedy union of the diseased bones, which when perfect causes the animal to travel sound. Blister pulverized cantharides $\frac{1}{2}$ oz., pulverized gum euphorbium, 1 oz., spirits of turpentine, 2 oz., lard, $\frac{3}{4}$ lb., mix. Shave off the hair over the enlargement, and apply the ointment once in four days rubbing in well with the naked hand.

RING-BONE.—This is a disease precisely like spavin, location only giving it a different name. The same alterations in structure take place, the same terminations follow, and the same treatment is called for.

CURB.—This is an enlargement at the back part of the hock, about four inches below the cap, arising from strains, bruises, etc.

TREATMENT.—In recent cases the part should be bathed with tincture of iodine once a day, or use the iodine ointment. Should this not succeed, blisters must be resorted to; the same applications as are used for spavin and ring-bone, are applicable here.

BLOOD OR BOG-SPAVIN.—This is but one disease, a bursal enlargement or an increase in the secretion of the joint oil, causing distention of the capular ligament which surrounds the joint, causing puffy swellings on the front and inside of the joint, rarely causing lameness. Thoroughpin is the same disease on a more extensive scale, causing the enlargement to extend through the joint from one side to the other.

TREATMENT.—Take white oak bark, 1 pailful after the outside or rough bark is rotted off, add 5 quarts water, boil down to one quart, to this ooze add 1 quart cider vinegar, and twenty-five cents worth of tannin. Bathe the affected parts two or three times a day with this ooze. The object to be accomplished in this disease, is to contract the skin over the enlargement; this causes the synovial fluid to scatter and be absorbed, leaving the parts smooth. The same treatment is proper for wind galls.

PALPITATION OF THE HEART.—This disease is known to horsemen as the thumps, in consequence of the violent action of the heart. The

worst cases yield in two hours to the following simple treatment: divide 1 drachm of digitalis into 5 powders, and give one every fifteen minutes on the tongue.

INFLAMMATION OF THE BRAIN.—Mad staggers, as this disease is called arises from various causes. Blows over the head will produce it, over feeding, a tight collar, powerful stimulants, etc. Symptoms: The animal at first is dull and moves with apparent reluctance, the pulse is full and quick, appetite lost, a vacant stare about the eyes, ending in delirium or madness.

TREATMENT.—Open the jugular vein as quick as possible; this must be done before the mad stage comes on or it is too late to be of much service. Open the bowels freely; give the following: Barbadoes aloes 1 oz., croton oil 10 drops, ginger 1 dr., gentian 1 dr., mix with molasses or honey. Give tobacco smoke injections if convenient, or soap and warm water will answer the purpose; give on the tongue every two hours 10 drops of tincture of aconite, six doses have been given and then stop the aconite; give cold water to drink and apply cold water to the head, or ice would be better; give no food, except a light mash for twelve hours after relief is obtained.

STOMACH STAGGERS.—This disease occurs in horses that are great feeders; in consequence the stomach becomes enormously distended, causing pressure upon the lungs and heart, interfering with the action of both, and causing a determination of blood to the head, producing stupor, with a tendency to pitch forward, resting the head against any object which may be in reach; the bowels are constipated, the pulse full and slow, respiration disturbed; sometimes snoring as he breathes. The same treatment as for mad staggers is proper in this disease. Care should be used after recovery not to allow the animal too much provender, and keep the bowels in good condition, as a preventive of subsequent attacks.

POLL-EVIL.—This disease is said to arise from blows upon the head behind the ears, in going in or out of stables with low doors, pulling upon the halter, etc. Such injuries in animals whose blood is in a bad condition will cause poll-evil, but it cannot live in a healthy system. The author's experience convinces him that the disease oftener arises from hereditary causes than from any other, having met with, on several occasions, two and three unbroken colts from the same mare affected with this disease, proving beyond a doubt the ready transmission of the disease from parent to offspring.

TREATMENT.—The blood must be thoroughly purified before a cure can be effected. Give the following powders: Pulverized sulphur 1 lb., black antimony in powder 4 oz.; mix together; dose, one tablespoonful morning and night, in bran and shorts; or use my Alterative Powders. No corn or cornmeal should be given. Green cornstalks are a good

thing to feed if the season permits; throw them on the ground; this keeps the matter running out, and the neck from getting stiff. Lay the tumor open with a knife, and push a small lump of unslacked lime to the bottom of the tumor; the next day wash the sore with castile soap and soft water, after which inject a drachm of creosote into the abscess; repeat once in two days, until all the callous pipes and hard fibrous base around the poll-evil is completely destroyed; heal the sore with the green magnetic ointment.

FISTULA OF THE WITHERS.—This disease is situated on the withers, or the raised line of the back, over the shoulders, and is precisely the same disease as poll evil, location only giving it a different name. It is more common than poll-evil, as ten to one, arising from the same causes, and requiring the same treatment; it yields, however, more readily than the former disease.

GLANDERS.—This loathsome disease has defied medical treatment in all ages of the world. It is one of the most treacherous diseases known to man, being highly contagious, and communicated readily from horse to horse, and from horse to man by means of inoculation. Hence the best treatment is a leaden ball through the brain. Symptoms: A discharge of matter from one or both nostrils, enlargement of one or both glands under the jaws; when one nostril only is affected, the gland on the same side is almost invariably enlarged, the membrane lining the nose is pale or leaden in color, with ulcerations upon it. The discharge usually sticks to the nostrils like glue, and as the disease advances becomes somewhat streaked with blood of a frothy, dirty appearance, and of an offensive smell; when these latter symptoms appear, the case is glanders, sure—beware of him. During the late rebellion many experiments were made with a view of discovering a cure for the disease, and with some prospects of success. The sulphate of soda, in ounce doses, three times a day, has been attended with partial success, and many cures are claimed through the agency of this simple remedy.

FARCY.—This disease I regard as an incipient stage of glanders, or as a type of the same fatal malady, and is to a certain extent, curable. There are two distinct varieties or stages of farcy; one, which is altogether superficial, being confined to the lymphatic vessels of the skin, and readily yields to the medical treatment; the other varieties makes its appearance in the extremities, generally upon the inside of the hind legs, which become completely engorged, presenting a very uneven or lumpy appearance, excessively tender and painful to the touch. Small abscesses are formed, which at first discharge healthy pus, but soon ulcerate and discharge a thin saviuous matter. These abscesses first make their appearance on the inside of the hind legs, and then on the fore ones

in like manner; the neck and lips come next in turn, and they may appear in all parts of the body, when glanders will begin to manifest itself.

TREATMENT.—Give once ounce of sulphate of soda three times a day; or *nux vomica*, in $\frac{1}{2}$ -dr. doses, twice a day; or sulphate of copper, in 2-dr. doses, once a day. The tumors should be opened and caustic silver or a red-hot iron applied to each.

MANGE.—This is a disease of the skin identical with itch in the human family. The hair comes off in spots, which gradually blend together, causing scabby patches; the skin thickens and puckers along the neck.

TREATMENT.—Take the horse in the sun, and scrub him thoroughly all over with castile soap and water, and wipe dry; then apply the following ointment to the affected parts: unsalted butter, 1 lb.; Burgundy pitch, 2 oz.; spirits of turpentine, 2 oz.; red precipitate pulverized, 1 oz.; melt the pitch and add the butter, stirring well, then remove from the fire, and when a little cool add the spirits of turpentine, and lastly the precipitate, and stir until cold. He must now be put in another stall, distant from the one in which he has been standing. Thus treated, it rarely requires more than one application to effect a permanent cure. The harness should be scrubbed and put away for a few weeks. These precautions are necessary to succeed in this otherwise troublesome disease.

SURFEIT.—This is a scurfy eruption all over the body, arising from an impure condition of the blood; the legs swell, the hair is rough and staring, the membrane lining in the nose presents a bluish cast. Give the following: Barbadoes aloes, 1 oz.; nitrate of potassa, 2 dr.; gentian, 1 dr.; make into a ball with water. Follow this with the alterative powder (which see).

HIDEBOUND.—Any derangement of the system has a tendency to produce this condition of the skin. The same alterative treatment as for surfeit is right; at the same time use the flax-seed jelly.

LOCKJAW.—This disease arises generally from nail-wounds in the feet, sharp metallic substances taken into and wounding the stomach, or stones in the intestines. The first symptoms of the disease are observed about the ninth or tenth day, if caused by an injury, which are a straggling or stiffness of the hind legs, to which succeed, in a few days, the following: On elevating the head, a spasmodic motion of the membrane in the inner corner of the eye will be observed; the muscles of the jaws become rigid, the tongue is swollen and the mouth filled with saliva, the ears are erect, the nose poked out, and finally the jaws become firmly set, and the bowels are constipated.

TREATMENT.—That which I have found most successful is the early administration of the following: tincture of aconite, 2 dr.; tincture of

belladonna, 2 dr.; water, $\frac{1}{2}$ oz.; mix and give 40 drops every four hours on the tongue; keep a ball of aloes in the mouth; there is no fear of giving too much; I have frequently given half a pound in the course of a few days with good results. If the jaws are so firmly set that medicine can not be given, they may be relaxed by saturating a cloth with chloroform and holding it close to his nose; foment the jaws with bags of hops steeped in hot water. Bathe the line of the back, from the poll to the crupper, with mustard and vinegar; be careful not to allow the animal to be unnecessarily excited by noises and bustle about him; keep a bran mash before him all the time. If the foot has been injured, poultice with a little flax-seed meal, with a little lard mixed in, and keep the wound open until healthy action has been established. By these means I have succeeded in saving two out of every three cases of tetanus coming under my care.

RHEUMATISM.—This is a common disease in some localities, as it is in the human family. The animal appears stiff and sore, the lameness shifting; the joints sometimes become swollen and painful to the touch; the animal appears better or worse according to the condition of the atmosphere.

TREATMENT.—Open the bowels with the following: calomel, 1 dr.; aloes, 4 dr.; molasses, enough to make into a ball; follow this with pine tar, $\frac{1}{2}$ oz., made into a ball with flax seed meal—give one every morning. Poultice the feet with flax-seed meal 4 parts, ground mustard 1 part, for several days; and bathe the affected limbs, rubbing (until hot) with the Rheumatic Liniment.

WARTS.—When the warts have necks, all that is necessary for their removal is a piece of silk tied in a surgeon's knot tightly around them as closely to the roots as possible—in a few days they will slough away; or, if they are large at their base, pass a needle, armed with a double thread, through the wart as near the root as possible, and tie each way, so as to cut off the circulation of the blood—and it will soon die; or, a quicker way is to cut them out. Run the tentaculum or hook through the wart and draw out, and cut the roots as you draw. If it bleeds much, take 5 grains nitrate of silver and 1 oz. of water, and wet a sponge and merely touch the parts with the wash and it will stop the blood. Treat it as any fresh wound; every time you wash it scratch the scab off so the scar will be small.

SADDLE OR COLLAR GALLS.—These are too well known to horsemen to require any special remarks regarding their cause, &c.

TREATMENT.—Bathe the parts two or three times a day with equal parts of tincture of myrrh and tincture of aloes; if the parts are red and inflamed, sprinkle a little dust of quick-lime upon them.

POULTRY LOUSINESS.—Great numbers of lice are sometimes found upon colts in the spring of the year; they are communicated to them by fowls being allowed to roost and remain in the same building with the colts.

TREATMENT.—There are a great many drugs that will kill lice, and some of them are quite as apt to kill the horse. I have found the following to be the most safe and least troublesome of anything, and a sure cure, as it destroys the nits as well as the lice: Aqua ammonia 2 ozs., soft water 1 qt., saltpetre 1 teaspoonful, castile soap (scraped) 2 ozs.; mix all, shake well, and let it stand a few hours before using, which gives the soap a chance to dissolve. Pour upon a sponge, or in your hand, and smear along the neck under the mane, and on the breast; examine other parts, and smear if any nits or lice are found. It rarely requires more than one application. The same treatment will destroy lice on calves or other stock.

HOW TO CURE CORNS.—Take off the shoe, cut out the corns, and drop in a few drops of muriatic acid. See that the shoe is set so that it will not bear upon the heel of the affected foot. Apply the Hoof Liquid to the hoof to remove the fever. This is a sure treatment. I never knew it to fail.

SAND CRACK.—Remove the shoe and ascertain carefully the extent of the injury. If the crack is superficial, fill it with the following composition: Burgundy pitch 2 ozs., beeswax 1 oz., mutton tallow 1 oz. Melt together and apply warm. If the crack has extended to the sensitive parts, and you can see any fungus flesh, with a small knife remove the edges of the cracked horn that presses upon it. Touch the fungus with caustic silver; dip a roll of tow or lint in tar and bind it firmly over the place. The whole foot is to be kept in a bran poultice for a few days, or until the lameness is removed. A shoe may now be put on so as not to press on the diseased part. The pledget of tow may now be removed, the crack filled with the composition, and the animal turned into some soft pasture.

SPLINT.—This appears on the inside of the fore-leg. Upon its first coming, apply the spavin medicine according to the directions there given and it will disappear.

WIND-GALLS.—These may be cured by rubbing a little creosote upon them once a day.

ENLARGEMENT OF THE THOROID GLAND.—This is a tumor coming near the larynx, in some cases as large as a goose egg.

TREATMENT.—Take 3 ozs. of the tincture of iodine, 1 oz. tincture of cantharides, 2 ozs. tincture of capsicum; mix and apply on the enlargement every night, rubbing it in well. Should the parts become sore, stop the use of it for a few days, then repeat the application. There is no case but this treatment will cure.

CHEESEY TUMORS IN THE NOSE.—This tumor is found in one or both nostrils. It is a soft, spongy tumor, and to remove it, open it with a sharp pointed instrument, and, after squeezing the matter out, introduce a piece of nitrate of silver three-fourths of an inch long, move it around by the pressure of the thumb and finger; let it remain in four hours, then open the tumor again, and with a smooth probe of wood (running it around in the wound) you can remove the sack or cyst. It will heal up in a week without any further trouble. These tumors cause hard or heavy breathing.

STRAIN OF THE STIFLE-JOINT.—This injury is sometimes called “stifles,” or the horse is said to be “stified.” In the acute stage, or if the injury has recently been done, there will be lameness, heat, and tenderness will be discovered on examination of the region of the stifle-joint by the hand.

TREATMENT.—The part should be kept wetted with tincture of arnica 4 ozs., water $\frac{1}{2}$ pint, mixed. As soon as the inflammation is subdued, if any swelling remains, it might be bathed with tincture of iodine 1 oz., oil of hemlock 2 ozs., mix and apply once a day; the horse being kept quiet during the treatment. Should this treatment fail to remove the lameness, insert a rowel just below and in front of the joint, or, if the case is a very bad one, two may be required—one on the inside and one on the outside of the joint, and about three inches apart. The proper way to insert a rowel is to cut a ring of leather, about an inch in diameter, and wrap it with flax or hemp, or thread will do; a hole is then cut in the skin, and the skin loosened in pocket form two or three inches down. The rowel is then moistened with Venice turpentine and passed down to the bottom of the pocket. The next day it will commence running. It is to be left in until it accomplishes the object or quits running.

The pus or matter should be pressed out once a day, and the parts outside washed with warm water and castile soap, and then smeared with linseed oil; this will keep the hair from falling off.

The rowel should be taken out every day or two, washed, then smeared with the turpentine and replaced. A string may be tied to the rowel and the end left hanging just outside, by which to remove it more readily. After the rowel has accomplished the object it should be taken out, the matter well pressed out, and the parts washed as before. Dress the incision with a little green ointment made as follows: Take honey and beeswax $\frac{1}{2}$ lb. each, raisins (chopped) and fine-cut tobacco $\frac{1}{2}$ lb. each, lard 1 lb.; simmer all well together, then strain and press out all from the dregs, and stir in 2 ozs. of spirits of turpentine and $\frac{1}{2}$ oz. of very finely pulverized verdigris, stirring until cold. The world cannot beat this ointment for general use. In deep wounds and old sores, it keeps

out proud flesh and heals beyond all calculation. It is good for cuts or sores on man or beast, and it has cured chilblains of three years standing. I have sold the recipe for ten dollars to a number of parties.

The following is the formula for making the justly celebrated carron oil, for the cure of burns, collar galls, etc.: Take lime water, 4 ozs.; linseed oil, 2 ozs.; mix, keep the burned part covered with muslin cloths well saturated in oil.

To make lime-water, take unslaked lime, 1 oz., and put to it boiling water, 3 pints; which will give one quart of clear lime-water.

POLL-EVIL AND FISTULA — Positive Cure. — Common potash, $\frac{1}{4}$ oz.; extract belladonna, $\frac{1}{2}$ dr.; gum arabic, $\frac{1}{4}$ oz.; dissolve the gum in 2 oz. water, then, having pulverized the potash (unless it is moist), mix the gum-water with it, and it will soon dissolve, then mix in the extract and it is ready for use. *Directions*: The best plan to get this into the pipes is by means of a small glass syringe. After having cleansed the sore with soap-suds, repeat, once in two days, until all the callous pipes and hard fibrous base around the poll-evil, or fistula, is completely destroyed; heal the sore with the green ointment. This will destroy corns or warts as well as poll-evil by putting a little of it upon the wart or corn, letting it remain from five to ten minutes, then washing off and applying sweet oil or vinegar—not squeezing them out.

FLAX-SEED JELLY.—Take one quart of flax seed, and put it in ten quarts of water, in a convenient vessel, and let it stand about twelve hours. Then put it over the fire and boil very slowly until it is boiled down to a thick jelly, which will take about three hours. It must be stirred constantly while boiling to keep it from burning. To this quantity add a double handful of salt, two ounces of ginger, and two ounces of ground poplar bark. The dose is one teacupful three times a day, to be given with cut or ground feed. While using this, give the horse a feed of boiled barley once or twice a week to keep his bowels regular. There is nothing in the world that will improve the condition of a horse as quick as this jelly. It will cure hidebound, or unthriftiness, making the hair smooth and glossy. It is perfectly safe, and good for any horse, sick or well. This recipe is worth twenty-five dollars to any horseman.

RHEUMATIC LINIMENT.—Take proof alcohol, 2 qts, and add to it the following articles: oils of sassafras and hemlock, spirits of turpentine, tinctures of cayenne, catechu, guac, and laudanum, of each 1 oz.; tincture of myrrh, 4 oz.; oil of origanum, 2 oz.; oil of wintergreen, $\frac{1}{2}$ oz.; gum camphor, 2 oz., and chloroform, 1 oz.; mix. This is one of the best liniments in use for the cure of sprains, bruises, cuts, jams, rheumatism, weak back, headache, toothache, neuralgia, &c. Remember that all liniments ought, in all cases where the skin is not broken, to be applied

freely, and rubbed in until the parts feel hot from its effects, instead of one or two minutes as is the usual custom. To apply it in toothache, saturate a small piece of lint and press into the cavity; in rheumatism and neuralgia, bind flannel on the parts and keep it wet with the liniment. No family should be without this liniment in the house.

IODINE OINTMENT.—Get 1 ounce of the crude iodine, 1 pint of alcohol, and mix. Let this stand in the sun two days and you have tincture of iodine. Take 2 oz. of the tincture and $\frac{1}{2}$ lb of lard; mix well and you have iodine ointment. Capped hock and elbow may be cured by rubbing them with either the tincture or the ointment once a day. As regards the elbow tumor, however, should it feel soft and fluctuating, it may be opened at the lower part, which will liberate the contents.

COLIC—Cure for Horses or Persons.—Laudanum, $\frac{1}{2}$ oz.; sulphuric ether, 1 oz.; blood-warm water, $\frac{1}{2}$ pt.; mix, and for a horse give all at a dose. The dose for a person would be from one to two teaspoonfuls; children or weak persons less, according to the urgency of the symptoms. I suppose there is no medicine in use for colic, either in man or horse, superior to this mixture.

RHEUMATISM—Internal Remedy.—Sulphur and saltpetre, of each, 1 oz.; gum guaiac, $\frac{1}{2}$ oz.; colchicum root or seed and nutmeg, of each, $\frac{1}{4}$ oz.; all to be pulverized and mixed with simple syrup, 2 oz. Dose—One teaspoonful every two hours until it moves the bowels rather freely; then three or four times daily until cured. This, used in connection with the external application of the Rheumatic Liniment, will cure any case where there is not callos enlargement of the joints.

EYE WATER.—Table salt and white vitriol, of each, 1 tablespoonful; heat them upon an earthen dish until dry (the heating drives off the acrid or biting water, called the water of crystallization, making them much milder in their action); now add to them soft water, $\frac{1}{2}$ pint, putting in white sugar, 1 tablespoonful, and blue vitriol, a piece the size of a small pea. If it should prove too strong in any case, add a little more soft water to a vial of it. Apply it to the eyes three or four times daily. To be applied to the lid and allowed to run down into the eye. In using any preparation for sore eyes, always repeat the application fifteen or twenty minutes from the first. This is proper for man or beast. For inflammation of any part of the body, apply this by wetting cloths. Even for sores about the ears and groins of babes, reduce it, and three or four applications will cure them.

ALTERATIVE CONDITION POWDERS.—Fenugreek seed, cream of tartar, gentian, sulphur, saltpetre, rosin, black antimony, and ginger, of each 1 oz.; cayenne $\frac{1}{4}$ oz.; all to be finely pulverized and thoroughly mixed. Dose.—In ordinary cases give two teaspoonfuls once a day, in cut or ground feed. In extreme cases give it twice daily.

QUICK PHYSIC.—Croton oil, 20 drops; crude mercury 5 grains. To be given in a pint of gruel. Or croton oil, 20 drops, castor oil $\frac{1}{2}$ pt., or linseed oil 1 pt. To be given in extreme cases only.

COMMON PHYSIC.—Barbadoes aloes, powdered 1 oz.; ginger $\frac{1}{4}$ oz.; warm water 1 pt., mix and give as a drench.

Previous to physicing a horse, and during its operation, he should be fed on bran mash, allowing plenty of chilled water, and if well enough have exercise.

COUGH POWDER.—Tartar emetic 1 oz.; pulverized rosin 2 oz.; pulverized blood root 1 oz.; salts of tartar and ginger, of each 2 oz.; mix, and give one teaspoonful three times a day in the feed.

CHRONIC COUGH TINCTURE.—Tincture of blood root and balsam of tolu, of each four ounces; tincture of lobelia and digitalis, of each two ounces; laudanum one ounce; oil of anise half a teaspoonful in an ounce of alcohol, mix well. Dose—About 2 tablespoonsful three times daily, in the same amount of honey, to be given in a pint of flax-seed tea. The dose for a person would be about half a teaspoonful three times daily, in the same amount of honey, increasing to a teaspoon if needed to loosen and lessen the cough. It has raised cases which doctors said must die. If the cough is very troublesome when you lie down, put tar and spirits of nitre, of each one teaspoon, into a four ounce vial of water, shaking well; then when you feel those tickling sensations, just sip about a teaspoon from the vial without shaking, and you can soon go to sleep.

COLD LOTION FOR INFLAMMATION.—Saltpeter 4 oz., sugar of lead 1 oz.; muriate of ammonia 1 oz.; common salt 1 pt., cold water 2 gallons, mix, and bathe the part affected often.

TO REDUCE SWELLING CAUSED BY HURT.—Common wormwood 2 oz., diluted alcohol 1 qt.; steep the herb in the liquor, and bind on the part, and keep it wet with the liquor. Smart weed used in the same way is excellent.

To prevent inflammation following a hurt and abate the swelling, there can be no better remedy than tincture of Jimson seed. To 2 oz., of the bruised seed add $\frac{1}{2}$ pt., alcohol, let stand in the sun two days, and you have tincture of Jimson. When used it should be diluted with an equal quantity of water. If this is not ahead of "Tincture of Arnica" for bruises, sprains, etc., then I will acknowledge that I don't know about such things.

JIMPSIACUM.—Pick about a bushel of jimson leaves, while yet green having a suitable iron kettle placed over a slow fire; put in a few of the leaves and mash them as you keep adding until you get them all mashed into a pulpy mass, then put in lard 5 lbs., and stew to a crisp; then strain and box for use. It is anodyne, (relieves pain) in burns, scalds, old

ulcers, skin diseases, piles, etc., it is discutient, (reducing swelling) giving tone to the muscles and tendons.

TO PREVENT CATCHING DISEASES.—Asafoetida $\frac{1}{2}$ oz., tied in a strong rag, and nailed to the manger or feed box; also another piece in the bottom of the water bucket. If on a journey, a piece the size of a bean should be put in a strong rag and to the bridle bit. The asafoetida, thus used, prevents the horse from taking disease, and improves his coat.

TO CLEANSE OR PURIFY INFECTED STABLES.—For cleansing stables in which horses having glanders, farcy, strangles, mange or other contagious diseases, have been kept, scrub all parts of the stall, manger, rack, etc.; then burn sulphur so as to fumigate the stall or stable perfectly. Put 1 lb. of chloride of lime in a pail of water, and whitewash the entire stable with the solution. The gearing, halters, and harness used about a diseased horse should be similarly treated, or thrown away. Freezing will remove the infectiousness of most diseases.

TO DRIVE MAGGOTS OUT OF A SORE.—Pyroligneous acid a few drops, will drive them out, and prevent the fly from depositing more eggs in the sore. Spirits of turpentine will drive them out.

To make a star on a horse's forehead, or spot him like a circus horse; shave the hair off the size and shape you desire the spot to be, and anoint the part shaved, with oil of vitrol, using a feather or Artists pencil. After using the vitrol, the place will become quite sore. It may be healed by washing it with the wash for sores; which is made by dissolving 2 drachms copperas in a pint of soft water. This is a valuable wash for old sores as well as recent ones. An ounce in the same quantity acts as a mild caustic, and may be used to destroy proud flesh. The powder is used as a "styptic" to stop blood in wounds, or accidents, in performing operations.

PULSE.—The best place to feel the pulse, is at the angle of the under jaw-bone. It is soft and moderate in its action when the horse is in health, being about thirty-six to forty beats in a minute. During inflammation the pulse is hard, and like a cord to the finger; it is likewise quick in proportion to the force of the disease. A slow, small pulse accompanies debility, and a quick small, irregular pulse generally attends fever.

POULTICES.—When a poultice is applied to a part, it must be kept always wet. If suffered to dry, it always does harm.

FOMENTATIONS.—In fomenting a part, keep it always covered, and when finished, dry it well, or evaporation will do more harm than the fomentation did good.

HOW TO KNOW A HORSE'S AGE.

Every treatise on farriery has instructed us to know a horse's age by the mark in his mouth; but not one in five hundred (a dealer excepted) can retain it in his mind. I have endeavored, therefore, to represent it. Every horse has six nipper-teeth before in each jaw; till he is two years and a half old they are all smooth and uniform in their upper surfaces. At two years and a half old he sheds the two middle teeth (by the young teeth rising and forcing the old ones out), which at three years old are replaced by two hollow ones. When he is about three years and a half old, he sheds two others, one on each side the two middle ones, which at four years old are replaced by two others, which are also hollow. The sharp single or bridle teeth begin to appear in the lower jaw, and when the horse is between five and six years old they are full grown, pointed, and concave in the middle. When he is four years and a half old, he sheds the two corner teeth, which at five are replaced also with two hollow ones, grooved on the inside, which groove marks the age precisely. At six years of age this groove begins to fill up and disappear; so do the hollow of the rest of the teeth, which continue till near seven and a half or eight years old, when all the teeth become uniformly full and smooth.

Crafty jockeys will sometimes burn holes in the teeth to make them appear young; this is called bishoping; but a discerning eye will soon discover the cheat.

In the purchase of a horse, examine four things—his teeth, his legs, his wind, and his eyes. If his eyes are lively and clear, and you can see to the bottom, and the image of your face be reflected from thence, and not from the surface of the eye, they are good; but if muddy, cloudy, or coal black, they are bad.

WEIGHTS AND MEASURES.

It is not always that we get medicines in the exact quantity of the apothecary that we wish to give. The following table will enable any one to judge with sufficient accuracy the proper amount in all common cases:

One pound (lb.) contains	—	—	12 ounces.
One ounce (oz.)	“	—	8 drachms.
One drachm (dr.)	“	—	3 scruples.
One scruple (scru.)	“	—	20 grains.

In liquid measure a pint contains 16 fluid ounces; two tablespoons make an ounce; one teaspoonful one fluid drachm; sixty drops make about one teaspoonful. In dry measure, the cup or spoon should be

rounding to hold out weight, unless the article is heavy, such as salt, saltpeter, loaf sugar, etc., in which case level measure will do.

INFLAMMATION OF THE UDDER OR GARGET IN COWS.—Inflammation of the bag, or garget, usually attacks cows with the largest bags, and therefore the best milkers are most subject to it. It occurs almost immediately after calving. Symptoms: The first symptoms are loss of appetite, and the animal is feverish, with a peculiar straddling of the hind legs.

TREATMENT.—The cow must be milked immediately, and the bag fomented two or three times daily with hops, and give the salts physic. After the pain and inflammation have subsided, omit the fomentations, and rub the part with magnetic ointment (which see). Should the bag suppurate and form an abscess, the latter must be opened with a lancet. The orifice made by the lancet must be kept open by washing with warm soap-suds, and dried with a soft cloth, after which smear the parts with linseed oil, or ointment, otherwise a subsequent abscess will form.

PHYSIC FOR CATTLE.—Cape aloes 4 drachms to an ounce, epsom salts 4 to 6 oz., powdered ginger 3 drs.; mix and give in a quart of gruel. For calves, one-fourth to one-half of this amount, according to the age. Or, linseed oil 1 pt., salts 4 oz., ginger 3 drs.; mix and give in the same proportions.

BAKE IN THE MANIFOLDS.—This is caused by the animal eating corn fodder or other dry food, and not having water regular. Symptoms: the animal will neither eat nor drink; lies down a considerable portion of the time; and there is no faeces passed, and but little water.

TREATMENT.—In these cases the back rake, with enemas as for horses should be injected into the fundament; and the physicing persevered with until the alimentary canal is unlocked.

FLATULENT COLIC.—This is sometimes called "bloating." It is distention of the intestines, by the formation of gas, caused by the animal eating green clover or other green food. If discovered before much bloated, immediately drench the animal with chlorate of potash $\frac{1}{2}$ oz., tincture of aloes 3 oz., warm water 1 pt.; mix. If this is not at hand, give a pint of whiskey as a drench, and rub the swollen parts with the bottle. If the whiskey can't be had, give a pint of warm water with 2 oz of prepared chalk or salt—the chalk is best, if you have it. If you have no remedy already mentioned, and there is danger of rupture of the stomach, immediately puncture it with the small blade of your knife, selecting a place about four inches forward of the hip-bone, on the left side of the animal; this will liberate the gas and save the animal's life.

TAKING THE PLACANTA AWAY.—This should be done within twenty-four hours after calving or the cow wont do well. The operation is performed in the following manner; secure the animals head with a rope to

the manger; grease the right hand and arm well, and pass it up the vergina, until you feel a string like substance; follow this up and feel where it is fast, then commence to cut it loose with your thumb and finger nails, taking care not to interfere with the ovias or buds as they are called. After all loose parts are removed give a warm bran slop, and keep the animal warm and comfortable for a few days, and nature will do the rest.

HOLLOW HORN.—This is a disease occurring generally in the winter and spring, among thin poorly wintered stock. The first symptoms that will be noticed, the animal looks hollow-eyed, the hair is rough, and the skin tight to the bones; the horns are cold, and the nose is dry and cold.

TREATMENT.—Give the condition powders as to Horses; bore a small gimblet hole in the middle of the horn, just to the hollow, saturate a wollen cloth with balsam of fir, wind around and tie so that it can't slip off. Put a few drops of spirits of turpentine on top of the head keeping the animal in a warm place with proper food, and a cure will follow.

BIG JAW.—This is a swelling under the jaws. Blister the swelling until it either goes away or forms an abcess in which case use the lancet.

SIGNS OF DISEASE IN THE HORSE.

There are certain signs and symptoms present in every disease if we understand which, we can diagnose the particular disease or lameness with as much certainty as if the horse could speak.

THE PULSE.—The pulse of a medium sized healthy horse beats about forty per minute. Any considerable increase of the pulse over forty per minute indicates fever or inflammation, and other symptoms must be looked for to determine the particular locality of the disease. When great weakness ensues, the pulse becomes fluttering.

THE MEMBRANE OF THE NOSE.—This, in health, is of a light pink color. In fever and inflammation it is red. If of the lungs or air passage, it is more deeply colored, and specked with brown mucus. In the very last stage of most diseases, when death is about taking place, the membrane of the nose becomes of a dark leaden or livid color. In glanders it is of a light blue and reddish color, with specks of ulceration over it. In scarlet fever it is covered with scarlet spots. The ears, in disease lose their erectness and quickness of motion, and become dull, loose and fallen. The ears are cold in inflammation of the lungs and pleurisy. Slightly so in other diseases, as colic, etc.

THE EYES—Weeping of the eyes is observed in colds, strangles catarrhal fever, and glanders. When the eyes become glassy in the advanced stage of disease, it indicates that death is about to take place.

THE MOUTH.—The mouth is hot in fevers and inflammations. The mouth and tongue are clammy and offensive in severe fevers.

THE BREATHING.—The breathing is rapid in fevers, laborious in inflammation of the lungs; laborious, short and catching in pleurisy, and difficult in thick wind. The nostrils are much spread, in inflammation of the lungs and pleurisy; the breath is hot; deep snoring breathing indicates disease of the brain.

THE FEET.—Coldness of the feet indicates inflammation of important internal organs, as the lungs, pleura, bowels, bladder, etc.

THE HAIR.—The hair is dry and staring in farcy, glanders, indigestion, hide-bound from any cause, worms, mange, surfeit, all diseases of the skin, and starvation. The hair comes out in patches in mange, and in spots in surfeit.

THE SKIN.—Heat of the skin is one of the principal signs of external local inflammation, it also shows the presence of some fevers of a general character. A yellowness about the mouth, eyes, and nose, shows jaundice or inflammation of the liver.

The flanks heave in inflammation of the lungs, pleura and bowels. They are tucked up in glanders, farcy, indigestion, jaundice, and other diseases in which digestion is impaired. A kernel will be felt in the inside of the loose skin of the flanks, in the groin, in mange. The flanks throb in thumps. Bunches along the jugular vein indicate repeated bleeding for some acute disease to which the horse is subject. If the upper incisor teeth are worn more than the lower ones, the horse is a cribber. If the forward shoes are worn much more at the toe than heel, the horse is a careless stepper, or a stumbler. It is well to look to all of these things when we purchase.

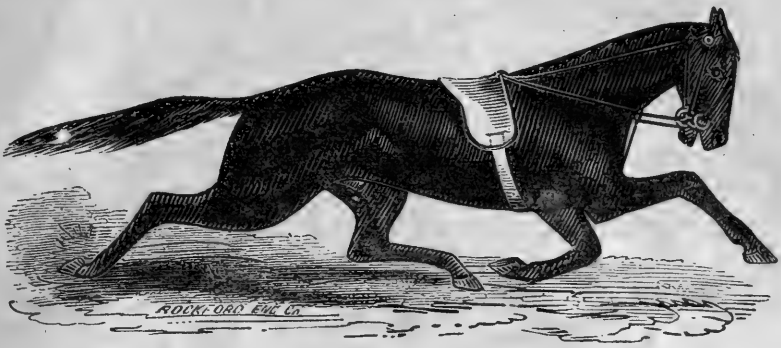


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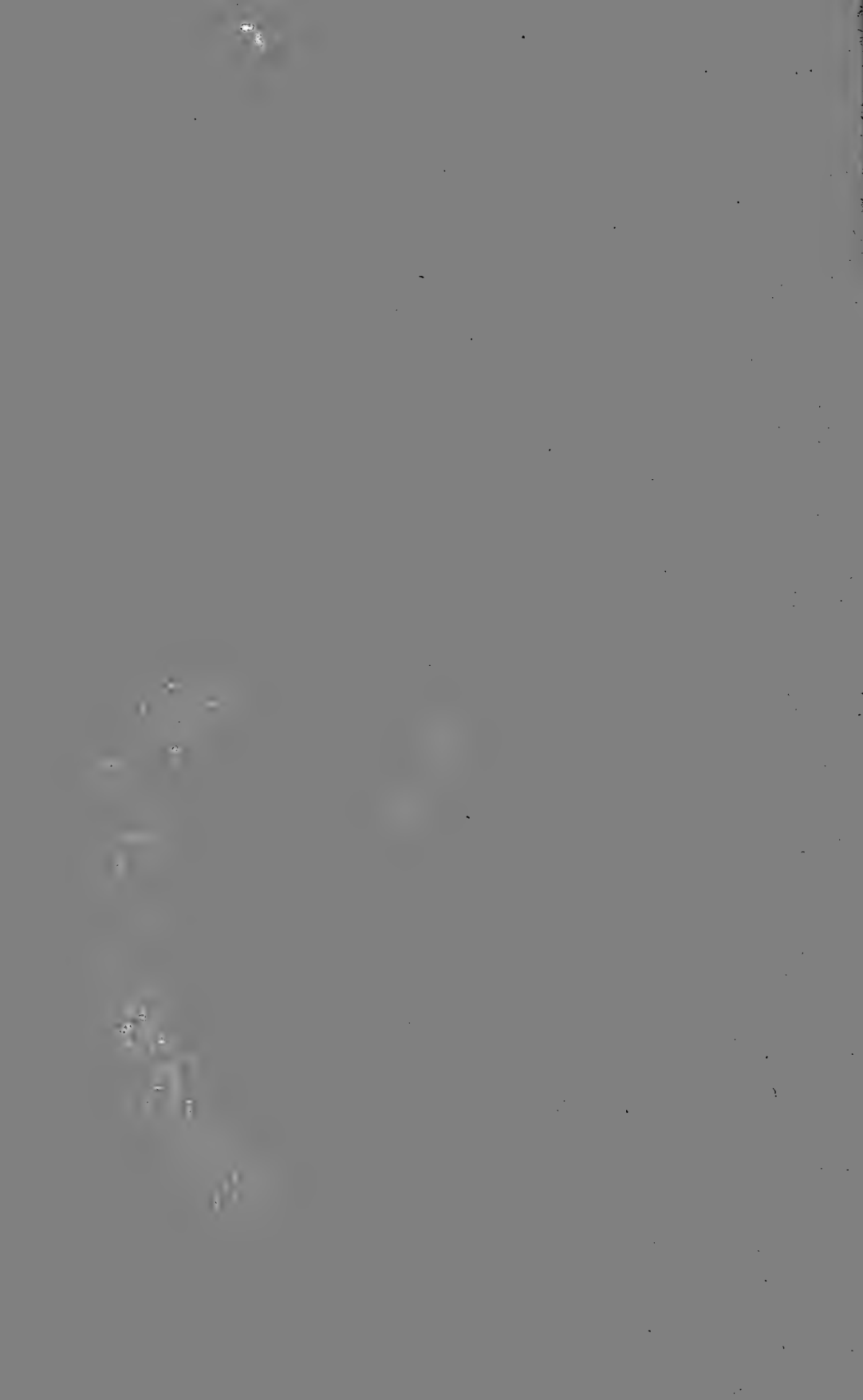
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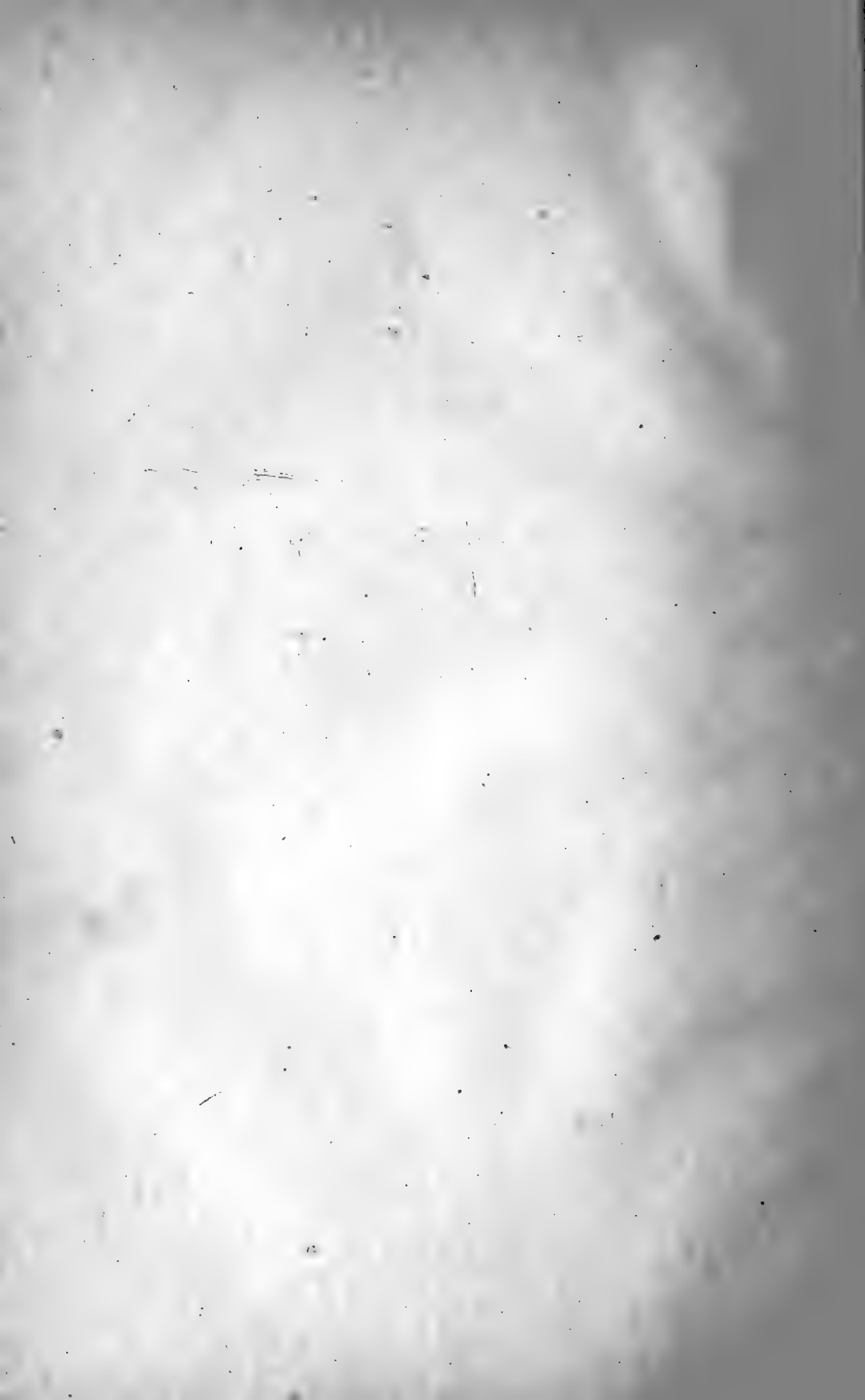


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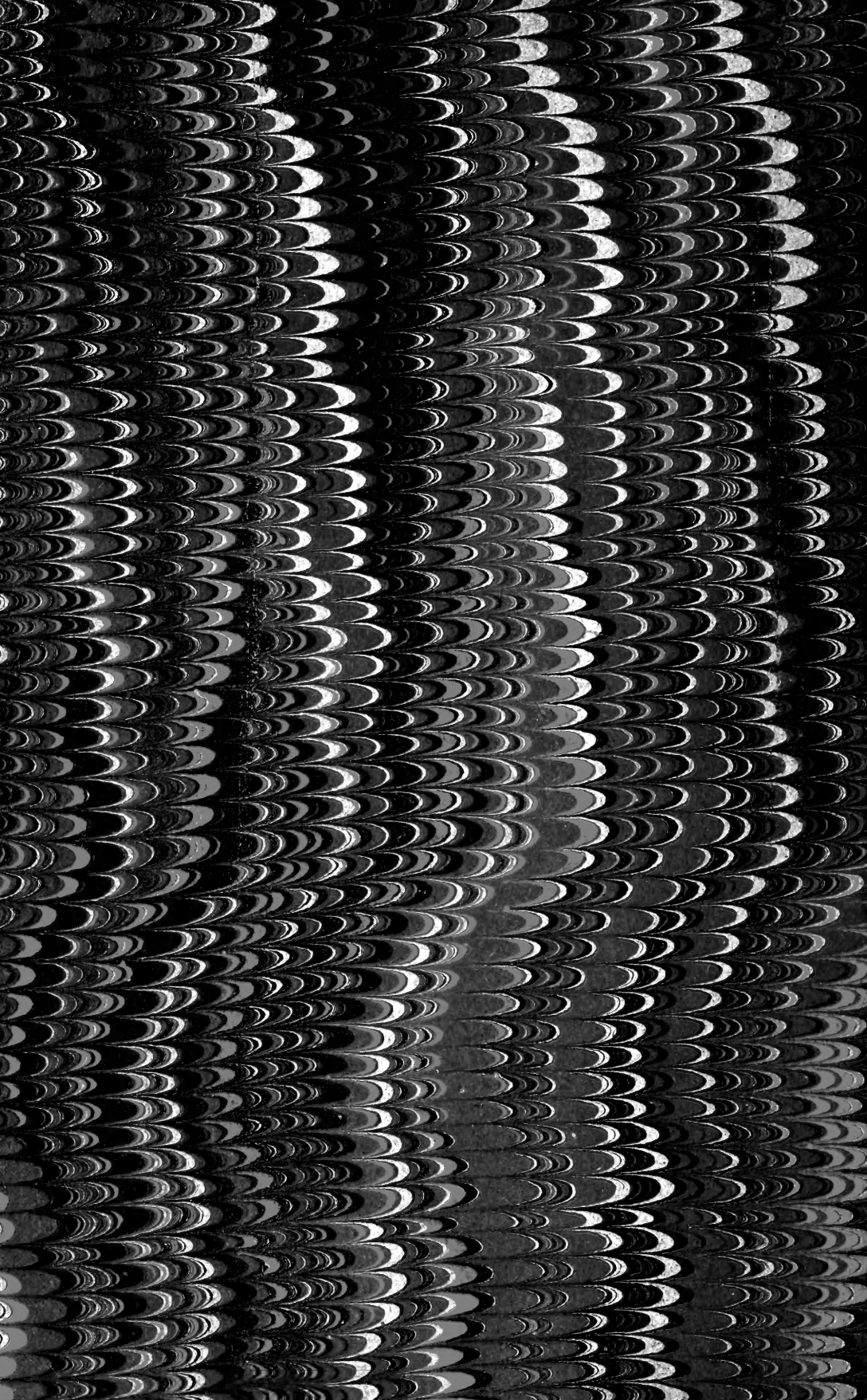


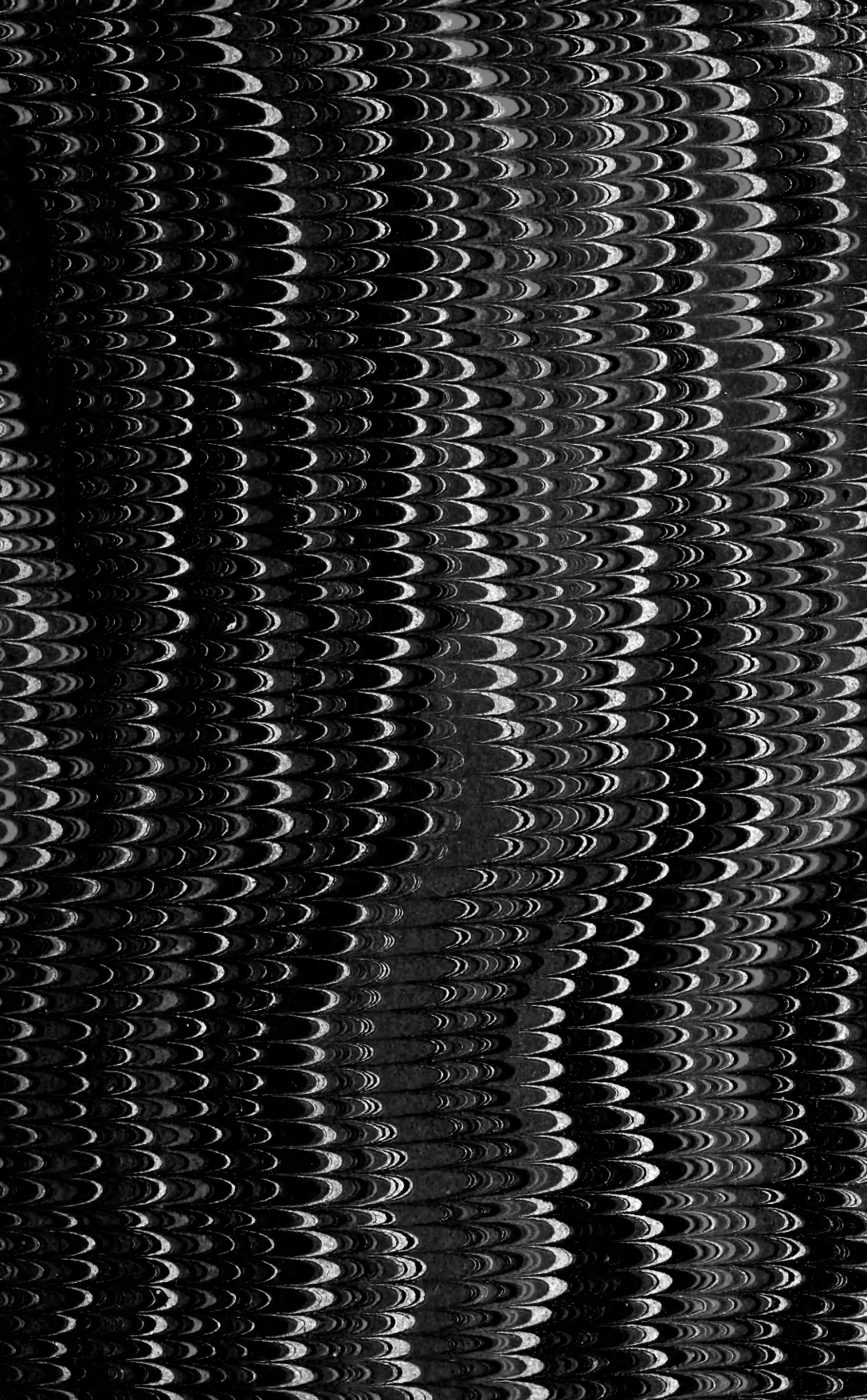












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